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THE ARMY.

THE recruiting officers of the Army have received instructions from the War Department to be more particular in examining persons proposing to enlist. The standard of height is now five feet six inches, instead of five feet five inches, as heretofore.

We have received from time to time many complaints of Army clothing, some of which we have published as samples of the whole, throwing the majority of them aside, as we have given quite enough of them to show the general character of the complaints. In a communication to Lieutenant-Colonel R. O. Tyler, deputy quartermaster-general U. S. Army, chief quartermaster Military Division of the Pacific, General Meigs answers the criticisms with which he has been visited as follows:

Lieutenant-Colonel R. O. Tyler, Deputy Quartermaster-General U. S. Army.

COLONEL: Your communication of the 20th ult., forwarding copies of extracts of endorsements of various officers, relative to the quality of clothing furnished to troops in the Department of Arizona, has been received. In reference thereto you are respectfully informed that the knapsacks, good when made during the war, have decayed by lapse of time and chemical reactions in the paint. They have all been made for five or six years, and this chemical decay could not be prevented or remedied. New ones are now being made to replace the old ones, which will be withdrawn.

BOOTS AND SHOES.—Samples from the Pacific have been sent here to determine whether the thread has rotted, as believed by some. These were all made during the war. All shoemakers use occasionally thin shavings of leather to fill space between outer and inner soles. Soldiers, ready to find fault and charge fraud, call these chips of wood. I have seen several such complaints, and I think no wooden chip from any Army boot or shoe has ever been shown to me.

BLANKETS.—The Mission mills, at high prices, can make excellent blankets; but their manufacture is stated, in some of the papers received from you, to be deteriorating in quality. The blankets bought during the war, though coarse, were serviceable, and until these are exhausted it is as wasteful an expenditure of public money to purchase finer and more expensive blankets as it would be to purchase fine Saxon broadcloths for soldiers' clothing.

The Army trousers are generally of strong cloth, though not all of standard color. This it was not possible to command in all the war contracts and purchases. The supply of trousers on hand is nearly consumed, and new ones are being made of good cloth, of which abundance of excellent quality is still in store from the supply delivered towards the close of the war, when the Department was providing for an army over a million strong.

Of greasy coats the supply on hand is still large. This clothing is the same, on the whole, as that with which the war was fought out, and were the troops more actively employed in campaigns, we should hear less criticism of the color and texture of the clothing.

Wooden handles of hard wood, whether oak or hickory, are subject to attacks of worms, known to the trade as "powder post." The best woods for handles are hickory and ash. Hundreds of thousands were sold after the war, to avoid risk of this decay and loss; and if at any post or place the handles on hand are found affected, they should be reported, inspected, condemned, and replaced by new.

Generally, on this subject, it is the duty of officers, looking to economy of the public money and property, to avoid criticism on supplies which are serviceable; which belong to the United States; which, if sold, would realize almost nothing; and to replace which would cost large sums of money. At the prices now charged the soldier, all the clothing is sold below its actual value. When from any cause any articles are really decayed, moth-eaten, or not strong enough to be serviceable, they should be inspected and disposed of according to regulations in such case made and provided; but to criticize the Department, which during the war clothed and supported and moved one-fifth of the able-bodied men of the loyal States, and to accuse unknown contractors of fraud, because every yard of so many millions of yards of cloths is not precisely the same shade of color or the same texture, is unjust.

In the attempt to make the best use of the many millions of dollars' worth of military material left in possession of the Department at the close of the war, this office expects to have the aid of its officers. The changing fancies of fashion, the whims of officers not responsible for the use or waste of this costly property, tend to agitation in favor of changes in uniform, both in color and style, and in material. But it is believed that economy, which is our duty, requires no considerable change to be made in the uniform until the material on hand is consumed, and I believe that the country and the great body of the Army are attached to the Army blue, and will hold to it many years to come. Very respectfully, your obedient servant,

M. C. MEIGS,
Quartermaster-General, Brevet Major-General U. S. Army.

Attention is also called by General Augur to the act of Congress approved July 16, 1862, chapter 190, which prohibits sentences to the penitentiary for offences purely military, but does not apply to other crimes, such as stealing, etc., not of a military character. In this connection the following decision of the Judge-Advocate-General, dated April 10, 1871, touching sentence to penitentiary for crime of desertion, is published for the information of all concerned, viz:

A sentence of imprisonment in a penitentiary upon conviction of desertion is improper, because such a sentence is, by the act of July 16, 1862, chapter 190, prohibited to be enforced. . . . The statute law is clear upon the subject; and no executive order, or opinion entertained by a court-martial, can avail to except any case whatever from the provisions of such law.

Another complaint which comes to us is that of illegal and unjustifiable punishments inflicted upon enlisted men. That these complaints have foundation is shown by the fact that Brigadier-General Augur, commanding the Department of the Platte, has found it necessary to issue an order in which he says: "From the proceedings of courts-martial, and from other sources, the commanding general is led to believe that at some posts in this department unusual and unauthorized punishments are at times inflicted upon enlisted men. He desires to have it distinctly understood by all, that

he will institute vigorous proceedings against any officers subjecting or authorizing subjection of men of their commands to punishment by sweat-boxes, tying up by thumbs, bucking, or any other irregular and illegal punishments. Commanding officers will be held responsible that such punishments are not resorted to in their commands. Summary punishments, if authorized and regulated by law, are undoubtedly most efficacious; but so long as they are not, recourse must be had to those now prescribed by law and regulations, and no others will be sanctioned or permitted."

ABSTRACT OF SPECIAL ORDERS

Issued from the Adjutant-General's Office for the week ending August 7, 1871.

Tuesday, August 1.

LEAVE of absence for six months on surgeon's certificate of disability is hereby granted Major John V. Du Bois, Third Cavalry.

The resignation of Second Lieutenant Dexter W. Parker, Sixth Cavalry, has been accepted by the President, to take effect July 16, 1871.

Ordnance Sergeant John B. Norton, U. S. Army, now on duty at Fort Morgan, Alabama, will be discharged the service of the United States. The department commander will make provision for the care of the public property until the arrival of another ordnance sergeant at the post.

At his own request, Superintendent Absalom S. Dial, National Cemetery at Corinth, Miss., is hereby discharged the service of the United States. He will receive no final pay until he shall have turned over all public property at the cemetery to his successor.

Superintendent R. C. Taylor is hereby transferred from the National Cemetery at Pittsburg Landing, Tenn., to that at Corinth, Miss., to take effect when his successor shall have reported for duty.

The leave of absence granted Second Lieutenant John A. Payne, Nineteenth Infantry, in Special Orders No. 131, June 26, 1871, from headquarters Department of Texas, is hereby extended ninety days.

Wednesday, August 2.

Leave of absence for one year from September 1, 1871, is hereby granted First Lieutenant Richard C. Churchill, Fourth Artillery.

The resignation of First Lieutenant Richard C. Churchill, Fourth Artillery, has been accepted by the President, to take effect September 1, 1872.

On the recommendation of the Quartermaster-General, the following changes in the stations and duties of officers of the Quartermaster's Department are hereby made: Captain Nathaniel S. Constable is relieved from duty in the Department of Dakota, and will report to the commanding officer Department of Texas for assignment to duty; Captain James W. Scully is relieved from duty in the Department of Texas, and will report to the commanding general Department of Dakota for assignment to duty.

The unexecuted portion of the sentence of a General Court-martial, promulgated in General Court-martial Orders No. 11, of February 10, 1871, from headquarters Department of Texas, directing that Private George Dyson, Company C, Twenty-fifth Infantry, "be dishonorably discharged the service of the United States; to forfeit all pay and allowances now due or to become due, and to be confined at hard labor at Fort Jackson, Louisiana, for four years," is hereby remitted, and he will be released from confinement upon the receipt of this order at the place where he may be confined.

So much of the unexecuted portion of the sentence of a General Court-martial, promulgated in General Orders No. 50, of September 10, 1870, from headquarters Department of Texas, as directs that Private John Wright, Company G, Sixth Cavalry, "be confined at hard labor at Fort Jackson, Louisiana, for the period of four years," is hereby so far remitted as to make the term of his confinement two years, commencing September 10, 1870 (the date of the promulgation of his sentence in orders).

Thursday, August 3.

So much of Special Orders No. 295, paragraph 7, of July 31, 1871, from this office, as directs that the cost of the transportation furnished to Chester Andrews, formerly private Battery B, Second Artillery, and others, from San Francisco, Cal., to this city, be refunded to the Quartermaster's Department by the Surgeon-General U. S. Army, is hereby revoked, and the amount will be refunded to the Quartermaster's Department by the treasurer of the Soldiers' Home, District of Columbia.

The unexecuted portion of the sentence of a General Court-martial, promulgated in General Court-martial Orders No. 26, of March 16, 1871, from headquarters Department of Texas, directing that Private John Hayden, Company G, Tenth Infantry, "be dishonorably discharged the service of the United States, with loss of all pay due or that may become due, and to be confined for one year at Fort Jackson, Louisiana," is hereby remitted, and he will be released from confinement upon the receipt of this order at the place where he may be confined.

Captain George H. Weeks, assistant quartermaster, will, in addition to his present duties, report to Colonel Hatch, superintendent Mounted Recruiting Service, to assume the duties of his department at St. Louis Depot, Mo.

Major Frederick E. Prime, Corps of Engineers, will report by letter to Major-General George G. Meade, pres-

ident of the retiring board convened at Philadelphia by Special Orders No. 201, May 23, 1871, from this office, and will hold himself in readiness to appear before the board for examination when summoned.

On the recommendation of the regimental commander, Second Lieutenant Thomas H. Barber, First Artillery, is hereby transferred from Battery M to Battery E of that regiment.

Hospital Steward James Wishart, U. S. Army, will be dishonorably discharged the service of the United States on receipt of this order at the post where he may be serving.

Upon the receipt of this order, Superintendent Charles N. Ruby (recently appointed) will proceed without delay to Natchez, Miss., and assume charge of the national cemetery at that place. The Quartermaster's Department will furnish the necessary transportation.

Private Frederick O. Mack, General Service U. S. Army, now an duty as messenger in this office, is hereby transferred, for the benefit of his health, to the General Service Detachment, headquarters Department of Dakota, and will report in person without delay to the commanding general of that Department for duty. The Quartermaster's Department will furnish the necessary transportation.

The superintendent General Recruiting Service (Western Division) will forward under proper charge, in detachments of convenient size, one hundred and fifty recruits from those which are or may from time to time become disposable at the depot to the following points for assignment to the Seventh Infantry: One hundred to Fort Shaw, Montana Territory (via Corinne, U. T.); fifty to Fort Buford, Dakota Territory (via Sioux City, Iowa). The Quartermaster's Department will furnish the necessary transportation.

Second Lieutenant Frank M. Gibson, Seventh Cavalry, will proceed to Fort Scott, Kansas, on business connected with the transfer of certain quartermaster's property for which he is responsible at that post. On completion of this duty he will return to his proper station.

Friday, August 4.

A board of officers, to consist of Colonel Henry J. Hunt, Fifth Artillery; Lieutenant-Colonel T. S. Laidley, Ordnance Department; Major Q. A. Gillmore, Corps of Engineers; Major Truman Seymour, Fifth Artillery; Major Silas Crispin, Ordnance Department; Major T. G. Baylor, Ordnance Department; Captain H. A. Du Pont, Fifth Artillery, will assemble at Battery Hudson, Staten Island, N. Y., on the 22d day of August, 1871, or as soon thereafter as practicable, for the purpose of testing "King's depressing gun carriage" for 15-inch barbette guns. Captain William R. King, Corps of Engineers, will hold himself in readiness to appear before the board, upon its call, for the purpose of furnishing such information, explanations, or suggestions, concerning the details of construction or manoeuvre of the carriage as the board may desire. The board will receive its instructions from the Chief of Engineers, and report the results of the trial and its opinion with reference to the fitness of the carriage to him. The junior member of the board will record the proceedings.

Private Charles Kotzenberg, Company H, Sixth Cavalry, having been appointed hospital steward U. S. Army, will report in person to the commanding officer Department of Arizona for assignment to duty. The Quartermaster's Department will furnish the necessary transportation.

The telegraphic order of the 31st of July, 1871, directing Lieutenant-Colonel E. Upton, Fifth Artillery, to repair to this city, is hereby confirmed. Lieutenant-Colonel Upton, having completed the duties required of him, will return to his proper station.

The following-named officers will report in person, on the 29th inst., to the Superintendent of the Military Academy, West Point, N. Y., for assignment to duty: Second Lieutenant Frank Heath, Third Artillery; Second Lieutenant Charles W. Whipple, Third Artillery; Second Lieutenant Edward S. Holden, Fourth Artillery.

Captain Robert H. Hall, Tenth Infantry, will, on September 1, 1871, be relieved as assistant instructor of infantry tactics at the Military Academy, West Point, N. Y., and assigned to duty as adjutant of the Academy. On receipt of this order, he will at once report to the Superintendent of the Academy for the purpose of familiarizing himself with the duties which will devolve upon him as adjutant.

The following-named enlisted men will be discharged the service of the United States upon the receipt of this order at the places where they may be serving: Private George C. Christy, U. S. Military Academy Field Music; Private George S. Waldron, U. S. Military Academy Field Music, to date June 30, 1871.

The Quartermaster's Department will furnish Henry Wilson, formerly private Company A, Thirteenth Infantry, with transportation from Augusta, Me., to this city, to enable him to enter the Soldiers' Home, the cost of which will be refunded to the Quartermaster's Department by the treasurer of the Soldiers' Home, District of Columbia.

The following-named enlisted men having been appointed hospital stewards U. S. Army, will report as follows for assignment to duty: Private Martin Lyons, General Service U. S. Army, in person to the Surgeon-General; Private Edward M. Tracy, Company C, Seventh Infantry, by letter to the commanding general Department of Dakota; Private Charles Wilson, Company H, Twentieth Infantry, by letter to the commanding general Department of Dakota.

Hospital Steward Bartholomew O'Leary, U. S. Army, on duty in the office of Medical Statistics, will be dis-

charged the service of the United States, to take effect August 1, 1871.

By direction of the President, the following transfers are hereby announced: Second Lieutenant Fayette W. Roe, Twenty-fourth Infantry, to the Third Infantry; Second Lieutenant Julius H. Pardee, Twenty-fifth Infantry, to the Twenty-third Infantry.

Saturday, August 5.

The leave of absence granted Lieutenant-Colonel George P. Buell, Eleventh Infantry, in Special Orders No. 137, April 5, 1871, from this office, is hereby extended six months.

Corporal John Boyle, Company K, Fifth Cavalry, now with his command, will proceed to Abingdon, Va., and report in person to the clerk of the U. S. District Court at that place, on the 17th day of September, 1871, for the purpose of giving his testimony in the trial of Daniel and John Littrell. As soon as the court shall have taken his testimony, or such statements as may be required, he will without delay return to duty with his command. The Quartermaster's Department will furnish the necessary transportation. Commutation of subsistence at the usual rates will be furnished if it is impracticable to provide subsistence in kind.

The following named officers will report in person without delay to the Chief Signal Officer of the Army for assignment to duty: First Lieutenant Charles E. Kilbourne, Second Artillery; First Lieutenant Crosby P. Miller, Fourth Artillery.

Upon the expiration of his leave of absence, granted in Special Orders No. 314, November 15, 1870, from this office, First Lieutenant Henry H. Humphreys, Fifteenth Infantry, will report in person without delay to the Chief Signal Officer of the Army for assignment to duty.

The leave of absence granted First Lieutenant William P. Vose, Second Artillery, in Special Orders No. 116, July 7, 1871, from headquarters Military Division of the Pacific, is hereby extended four months.

Captain James W. Powell, Jr., Sixth Infantry, is hereby relieved from duty under the orders of the superintendent General Recruiting Service (Eastern Division), and will proceed without delay to join his company.

Second Lieutenant Nathaniel Wolfe, Second Artillery, will report by letter to the superintendent General Recruiting Service (Eastern Division) to accompany a detachment of musicians and mechanics now under orders for the Military Division of the Pacific. The superintendent will inform Lieutenant Wolfe when his services will be required, in time for him to report for duty with the detachment before its departure from the depot. On completion of this duty Lieutenant Wolfe will join his proper station.

The leave of absence granted Assistant Surgeon Joseph R. Gibson in Special Orders No. 272, July 13, 1871, from this office, is hereby extended three months.

Leave of absence for five months, to take effect when his services can be spared, is hereby granted Captain S. H. Norton, Second Cavalry.

Monday, August 7.

The unexecuted portion of the sentence of a General Court-martial, promulgated in General Court-martial Orders No. 42, of March 27, 1871, from headquarters Department of the East, directing that Private Thomas Brennan, Battery A, Fifth Artillery, "forfeit to the United States seven-eighths of his monthly pay per month for eighteen months, and to be confined at hard labor under charge of a guard at Fort Columbus, New York harbor, for the same time, wearing a twenty-four pounder ball attached to his left leg by a chain three and a half feet long; then to be dishonorably discharged the service of the United States," is hereby remitted, and he will be released from confinement and discharged the service of the United States upon the receipt of this order at the place where he may be confined.

So much of the unexecuted portion of the sentence of a General Court-martial, promulgated in General Court-martial Orders No. 46, of April 11, 1871, from headquarters Department of the Missouri, as directs that Private Frank Morris, Company G, Third Infantry (now in confinement at Fort Leavenworth, Kansas), "be confined for the period of three years," is hereby so far remitted as to make the term of his confinement one year, commencing April 11, 1871 (the date of the promulgation of his sentence in orders).

The Quartermaster's Department will furnish transportation for the following named men from San Francisco, Cal., to this city, to enable them to enter the Soldiers' Home, the cost of which will be refunded to the Quartermaster's Department by the treasurer of the Soldiers' Home, District of Columbia: John Ecker, formerly private of band of Second Artillery; Peter McIntyre, formerly private, Company K, Twenty-third Infantry.

ARMY PERSONAL.

GENERAL McClellan has gone to Texas, where he has an interest in one or two railroads.

THE leave of absence for seven days granted First Lieutenant W. E. Van Reed, Fifth Artillery, was extended thirteen days, August 3.

CAPTAIN Andrew J. McGonnigle, assistant quartermaster U. S. Army, has been assigned to duty as chief quartermaster District of New Mexico.

HOSPITAL Steward Joseph Martin, U. S. Army, has been ordered to report to the commanding officer District of Mexico, Santa Fé, for assignment to duty.

BY telegraphic instructions from headquarters Department of Dakota of the 30th ultimo, thirty days' leave of absence was granted to Surgeon J. P. Wright, U. S. Army.

CAPTAIN William H. Nash, Subsistence Department U. S. Army, was relieved August 4 from duty as a member of the General Court-martial in session at Fort Union, New Mexico.

ASSISTANT Surgeon W. F. Buchanan, U. S. Army

was ordered August 7 to comply with Special Orders from headquarters Department of the East, assigning him to duty at Fort Hamilton, New York harbor.

SECOND Lieutenant George Duff, First Infantry, has been ordered to report on the 7th instant, as a witness, to the judge-advocate of the General Court-martial in session at Fort Wayne, Michigan.

THE seven days' leave of absence granted Second Lieutenant George W. Deshler, First Artillery, in Special Orders from headquarters Fort Ontario, New York, was extended eight days August 5.

LEAVE of absence for thirty days, on surgeon's certificate of disability, was granted Second Lieutenant W. N. Williams, Third Infantry, by orders from headquarters Department of the Missouri, August 2.

CAPTAIN Fred. W. Coleman, Fifteenth Infantry, was relieved August 5 from duty as member of the General Court-martial now in session at Fort Selden, New Mexico, and granted leave of absence for thirty days.

ACTING Assistant Surgeon W. T. Hendrickson, U. S. Army, now at Fort Smith, Arkansas, was ordered August 5 to Fort Gibson, Cherokee Nation, reporting upon arrival to the commanding officer Company D, Sixth Infantry, for duty with that company in the field.

IN accordance with instructions from the Secretary of War, First Lieutenant Henry N. Moss, First Cavalry, received orders from the headquarters Military Division of the Pacific, July 31, to report in person at the Military Academy, West Point, on the 1st of September next.

LEAVE of absence for ten days was granted Second Lieutenant J. E. Bell, First Artillery, in orders from headquarters Department of the East, August 7, and leave of absence for ten days to Surgeon James Simons, U. S. Army, and leave for thirty days to Surgeon Madison Mills, U. S. Army, August 4.

SPECIAL Orders from headquarters Department of Dakota, July 30, grant leave of absence for thirty days to Captain G. H. Cram, Twenty-second Infantry, with permission to apply through the proper channels for an extension of thirty days; the leave to take effect upon the relief of his company at Lower Brulé Agency, Dakota Territory.

MAJOR H. C. Hodges, quartermaster U. S. Army, was ordered August 3 to proceed to Fort McHenry, Maryland, and make an inspection of the new battery stables and gun shed at that post, as soon as he receives notification that these buildings are completed and ready for delivery to the United States.

FIRST Lieutenant D. J. Cragie, regimental quartermaster Twelfth Infantry, was relieved from duty at Yuma Depot, Arizona Territory, July 29, as acting assistant quartermaster and acting commissary of subsistence, by Captain J. G. C. Lee, acting quartermaster, U. S. Army, and ordered to the headquarters of his regiment, Angel Island, to assume his duties as regimental quartermaster.

ACTING Assistant Surgeon W. B. Dods, U. S. Army, received orders from headquarters Military Division of the Pacific, July 28, to report to the commanding officer Troop D, Benicia Barracks, on or before July 31, to accompany his command to Fort Yuma on the steamer *Newbern*. On completing this duty, Acting Assistant Surgeon W. B. Dods will report in person to the medical director, Department of California.

IN accordance with instructions from headquarters Military Division of the Missouri, the commanding officer of Fort Rice, Dakota Territory, will detail from his command a commissioned officer and such guard as may be required, to proceed to Washington, D. C., in charge of Captain J. H. Donovan, Seventeenth Infantry, where he will be reported to the Adjutant-General of the Army for an order of admission to the Government Asylum for the Insane, or such other disposition as may be made of him by competent authority.

THE following officers were registered at headquarters Department of the East for the week ending August 8, 1871: Second Lieutenant T. B. Briggs, Fourteenth Infantry; Captain E. V. Sumner, First Cavalry; Captain S. S. Sumner, Fifth Cavalry; Second Lieutenant J. M. Califf, Third Artillery; Second Lieutenant W. P. Van Ness, First Artillery; First Lieutenant E. R. Hills, Fifth Artillery; First Lieutenant S. McCombe, Fourteenth Infantry; Second Lieutenant James A. Buchanan, Fourteenth Infantry.

A DESPATCH from Quebec, August 8, announces that orders have been received there for the withdrawal of the British troops from the garrison of the Dominion of Canada, and the Sixteenth Rifles and other detachments will withdraw in the fall, the Sixteenth going to Halifax, and the Seventy-eighth to Bermuda. The Canadians congratulate themselves that their 20,000 volunteers are equal to their defence against all comers.

THE Seventh Connecticut Volunteers, originally commanded by General A. H. Terry, and afterward by General J. B. Hawley, will hold their third annual reunion at Meriden, Conn., on Wednesday, August 16. General Hawley, Colonel Rodman, Major Sanford, Surgeon Bacon, Chaplain Wayland, and many others will be present.

LETTERS IN THE NEW YORK POST-OFFICE.

THE following is a list of letters remaining in the New York Post-office on the dates given. These letters are retained in the New York Office for one month from date, after which they are sent to the Dead-Letter Office, Washington:

ARMY.

AUGUST 4.

Furniss, H. R., Captain. | Jarvis, J. H., Captain.

Jones, Catesby, Captain.

AUGUST 8.

Haig, Albert Captain. | Mullan, Jno, Captain.

THE NAVY.

The Editor invites for this department of the JOURNAL all facts of interest to the Navy, especially such as relate to the movements of officers or vessels.

VARIOUS NAVAL MATTERS.

THE sloop-of-war *Portsmouth*, of the South Atlantic fleet, has been ordered home.

THE U. S. steamer *Nipsic* arrived at Pensacola, Fla., August 2, from Tampico, Mexico.

THE U. S. steamer *California* arrived at San Francisco on the 30th of July, forty-three days from Callao.

THE U. S. flag-ship *Severn*, North Atlantic Fleet, is at the Navy-yard, Pensacola, Fla., under repairs. She is likely to remain some weeks.

PAYMASTER Arthur J. Pritchard, of the U. S. steamship *Benicia*, stationed at Japan, has returned home in consequence of severe and long-continued ill health.

THE U. S. steamer *Shawmut* sailed from Navy-yard, Pensacola, Fla., August 4, for Key West and San Domingo, West Indies, where she is to be stationed on temporary duty.

AN American frigate is reported to have shared the misfortune of the British iron-clad *Warrior*, which went ashore near Leighorn, as reported by telegraph August 3. The telegraph does not give us the name of the vessel. A number of small vessels and two Italian war steamers are engaged in rendering assistance to the disabled men-of-war, and it is hoped they will be got off without serious injury.

DESPATCHES have been received from Rear-Admiral John A. Winslow, of the Pacific fleet, dated July 1 to 15. He was then at Esquimalt Harbor, Vancouver Island. Since leaving San Francisco in May last he had visited, in his flag-ship *Saranac*, Port Townsend, Port Madison, Olympia, Steilacoom, Seattle, Tongas Islands, Fort Wrangel, and Sitka. The visit of the *Saranac* was received with much satisfaction by our citizens in the Territories. At nearly every port of anchorage she was visited by numbers of the Indians of the place.

THE *Evening Post* reports that Pay Director Benjamin J. Cahoon, on the retired list of the Navy, an old man of seventy, was recently brought before a commission of lunacy. The *Post* adds: "A suit is now pending against him in the United States courts for a defalcation of \$23,000. It is alleged by his friends, and seems to be conceded by the authorities, that this defalcation arose from his want of mind, and is in part or whole apparent. It was testified that his condition was occasionally varied by paroxysms of mania, but that he had always shown himself amenable to the control of his wife. The sheriff's jury found him insane, and fixed his property at \$30,000."

THE London *Broad Arrow* informs us that Mr. Rhodes, an officer of long experience both in the United States merchant service and Navy, who had the especial charge of the trial of the strength, endurance, etc., of some coils of New Zealand rope which were applied to the U. S. steamer *Resaca*, for trial purposes on the voyage from Auckland to Valparaiso, has made the following report thereon: "It has been rove off for tacks, sheets, staysail halyards, jib sheet, whips, &c., and, as well as I have been enabled to judge after so short a time, although it has been in continuous use for fifty-four and a half days, and the passage a wet and excessively stormy one, I consider it fully equal to any Manila rope I have ever used, after a long experience at sea with it. What effect long and continuous hot and dry weather may have upon it, after its long exposure to wet, etc., just experienced, I am unable to state, but am of opinion that it will in all probability prove a durable and excellent cordage for vessels."

A CORRESPONDENT writes us, July 21, that "The U. S. steamer *Franklin*, bearing the flag of Rear-Admiral Charles S. Boggs, commanding the European Fleet, accompanied by the corvette *Juniata*, sailed from Gravesend, England, on the 24th June, for a short cruise in the Baltic. After a stormy passage (made mostly under canvas), reached Copenhagen, Denmark, on the 1st of July, at which port they were most hospitably received and treated with a great deal of courtesy both by the officials and the citizens. The admiral and staff were presented to the King, and also dined with him. The 4th of July was celebrated at that port by the *Franklin*, *Brooklyn*, and *Juniata*, dressing ship and firing the usual salutes. On the next day the ships got under weigh and stood out of the harbor, and on passing Elsinore Castle (the residence of the King), a royal salute was fired by the fleet. The *Brooklyn* (after saluting the flag of the commander-in-chief) then parted company for a cruise in the Baltic, visiting Stockholm, Cronstadt, etc. The flag-ship and *Juniata* kept on for Christiania, Norway, arriving on the 7th. On entering the harbor the banks on either side were lined with people, to witness the arrival of the first American men-of-war in that port. The citizens were profuse in their kindness to the ships during their stay. In return for the civilities the officers gave a grand ball on board of the flag-ship. After leaving Christiania the flag-ship and *Juniata* parted company, the former going to Deal, England, and the latter to Flushing, Holland. The *Richmond*, *Shenandoah*, *Guerriere*, and *Saco* are cruising in the Mediterranean, and the *Plymouth* is stationed on the coast of England."

Mr. R. B. FORBES writes as follows in regard to his article on composite ships, which we last week transferred to our columns from the *Commercial Advertiser*: "In noticing my communication to the *Commercial Advertiser* in your last paper, you have perpetuated the error of their 'devil,' who read my very legible hand so as to put the word 'soundness,' instead of 'sourness,' in speaking of the oak plank. It is well known that the juices of oak are prejudicial to iron fastenings; there-

fore, composite vessels should be planked with teak, elm, or yellow pine."

A TELEGRAPHIC despatch from Utica, N. Y., reports that in an encounter at that place on the 8th instant, between two rival claimants for a young lady's affection, "Ford G. Hall of Rochester shot Paymaster Gouverneur R. Kortland, of the United States Navy." As there is no such officer in the pay corps or any other branch of the naval service, we fear that the unhappy Ford has wasted his powder on the wrong man, or else that there is a bilged paymaster, as well as a bilged midshipman, to be looked after.

A COURT-MARTIAL has inquired into the cause of the accident by which the British iron-clad *Agincourt* was lodged on Pearl Rock in the midst of a bright summer's day. As the result of a survey, the vessel has been pronounced thoroughly seaworthy. The court found the officers of the vessel guilty of the charges of negligence, etc., but under extenuating circumstances, and sentenced Captain Beamish and Staff-Commander Knight to be severely reprimanded and admonished, and Lieutenant Bell to be admonished. Meanwhile another British naval vessel, the *Magara*, has gone ashore at St. Paul, in the Indian Ocean, and it is feared will prove a total loss. The crew and passengers were saved. The British iron-clad frigate *Warrior* is also reported ashore near Leghorn.

THE Navy Register to July 1, 1871, just issued, shows that we have twelve first-rate vessels, carrying from twenty-one to forty-five guns; fifteen second-rate ones, carrying from fifteen to twenty-three guns; twelve third-rate ones, carrying from eight to twelve guns; eleven fourth-rate ones, carrying from five to seven guns; nineteen fifth-rate ones, carrying from one to sixteen guns or howitzers; and twenty-nine receiving and practice-ships, supply vessels unfit for repairs. The total number of vessels is 179, of which 51 are iron-clads, laid up at League Island, New Orleans, Washington, and other places, the *Terror*, of the North Atlantic fleet, being the only one in active service. Thirty are tugs, doing duty at the various navy-yards and stations. Thirty-six vessels are abroad on the several foreign stations, and a large number are laid up at the navy-yards throughout the country, being of no use, as the law does not permit the enlistment of a sufficient number of men to send them to sea.

THE "bilged" midshipman is still upon his travels, and at last accounts was at Meadville, Pa., from whence one of our subscribers, Mr. Jas. E. McFarland, cashier of the Merchants' National Bank, writes us as follows: "I feel that you have saved me four or five times the amount of a year's subscription during the past week. It was in this way: A few days since a fine-looking young fellow, about 23 years of age, hair, eyes, and complexion rather dark, dressed in the uniform of a naval officer, came into the Merchants' National Bank, of which I am cashier, and introduced himself as Lieutenant Arthur H. Fletcher of the U. S. Navy. He said he was on his way home from the East India squadron, and in passing through San Francisco had seen my son, Lieutenant-Commander John McFarland of the U. S. steamer *California*. I invited him to my house, but he declined, saying he was in a hurry to go East to meet his parents, but would be under the necessity of asking some pecuniary assistance, as he was out of funds. I had a few days before seen Mr. Folger's letter in regard to a swindler who had called upon him in Massillon, Ohio, and my suspicions were at once aroused in regard to the honesty of the young man before me. After putting a few questions to him, I was quite satisfied he was an impostor; but, desiring to move cautiously, and wishing to consult your paper again (which was at my residence), I informed him I would call upon him at the Depot Hotel at three o'clock. After referring to Mr. Folger's letter in the JOURNAL of the 29th ult., I was confirmed in my suspicions, and I hunted up a police officer as soon as possible to arrest him. But we were too late; the bird had flown. He had taken the first train out after leaving me, forgetting to pay for his dinner, and so escaped for the present. I trust the scamp may yet be brought to justice. I gave him a 'first-rate notice' in our local paper, and hope you will continue to advertise him, and thus warn the unwary against him."

THE Navy Department does not expect to receive until the 15th inst. despatches from Corea concerning the second day's fight, and the Department of State also expects, at that time, an official communication from Minister Low. The proposition for an expedition to Corea was first brought to the attention of the Department of State in April, 1868, by Consul-General George F. Seward, at Shanghai. In his communication he said in his opinion there was no sufficient object attainable to render it advisable to use force, or even the show of force, to procure a commercial treaty with the Coreans. It might be considered, however, that the interests of our shipping require that at least a treaty providing for the kind treatment of shipwrecked people should be entered into; but if the Coreans were prepared to go to the extent of opening up their country to our merchants, that opportunity was one which should not be lost. The first object of a mission would be to procure information of the loss or destruction of the American schooner *General Sherman*, and in case the reports of the wrongful treatment of the crew prove correct, indemnity or satisfaction therefor. He added:

On the other hand, there is something due from us to the Coreans. We should assure them of our appreciation of their kindness to the wrecked crew of the *Surprise*, in 1866; and disposed as we are, not only to assert our dignity, but as well our intent to deal justly, we cannot be indifferent to the propriety of offering to Corea an explanation of our views and conduct in regard to the recent expedition of an armed force for the purpose of huming and holding for ransom the remains of one or more sovereigns of that country in which one of our citizens has been charged as a leader. It is satisfactory to know that we have only to ask from Corea proof that she dealt as honorably with us in the *Sherman* case as we have with her in the latter matter. The settlement of the *Sherman* affair and a commercial treaty may, it seems to me, be obtained without great difficulty; but that a considerable show of force would probably be needed to secure a general treaty. * * * But of course, I contemplate only the display of force, not its use, and not even intimations that it may be used. I know well that there should be no irregular action, and that it will be time enough

for the United States to determine on the exercise of force when peaceful efforts shall have been exhausted and all the circumstances broadly considered.

Other suggestions were made by Consul Seward, and he says that Admiral Rowan had himself proposed to him that authority and instructions in their joint names to prosecute the mission should be applied for. On the 4th of April, 1870, Secretary Fish wrote a letter to Secretary Robeson, in the conclusion of which he says:

"This Department is prepared to instruct the Minister of the United States at Peking to open negotiations with the Government of Corea for the conclusion of such a treaty to regulate the treatment of shipwrecked seamen. It is thought best to intrust this duty to the diplomatic representative of the United States, instead of the Admiral of the fleet, because the political relations between China and Corea are such as to make it desirable to first obtain the good-will and possibly the good offices of the Chinese Government. * * * This Department asks that instructions may be given to Admiral Rodgers to place himself in communication with Mr. Low soon after his arrival in Chinese waters, and agree with him upon a time when he shall transport that gentleman to Corea. It is hoped that the expedition will be sufficiently formidable to make an impression upon the native authorities, and that Admiral Rodgers will accompany it in person. Mr. Low will be instructed to counsel and advise with him with the utmost frankness and confidence in every stage of the negotiations. Should, unhappily, any cause for hostilities occur during this mission, it is hoped that the Navy Department will instruct Admiral Rodgers, in such case, to advise with Mr. Low, and to leave with this Department the responsibility of war or peace."

The letter of Secretary Fish to Minister Low, dated April 20, 1870, is as follows:

SIR: It has been decided to authorize negotiations to be had with the authorities of Corea, for the purpose of securing a treaty for the protection of shipwrecked mariners, and to entrust the conduct of the expedition to you. Should the opportunity seem favorable for obtaining commercial advantages in Corea, the President treaty should include provisions to that effect; but the present principal aim in this mission to secure protection and good treatment to such seamen of the United States as may unhappily be wrecked upon those shores. The enclosed copies of the treaties concluded with Japan at Kava-Gana in 1854, and at Yeddo in 1858, will serve to point out the kind of protection which you will seek to secure as well as the commercial articles which it may be desirable to enter into. These copies, together with the copies of despatches from Consul-General Seward, which are inclosed, indicate fully what you are to endeavor to obtain. Little is known of the shores or internal waters of Corea, or of the people who inhabit that country. Before leaving to carry out these instructions, you will endeavor to gather all the information on these subjects that can be obtained at Peking. Some political connection exists between China and Corea, which may make it advisable for you to secure in advance the good-will and possibly the good offices of the Peking Government. You will, of course, do whatever can be done in that way. Admiral Rodgers will receive instructions, a copy of which has been forwarded to you in my No. 8, from the Navy Department, to place at your disposal accommodation upon the flagship, and to accompany you himself upon this mission with a display of force adequate to support the dignity of this Government. You will maintain entire frankness and unreserve with Admiral Rodgers, conferring freely with him in every stage of the negotiations.

In arranging the time for carrying out these instructions, it is also desirable, if possible, to secure the presence and co-operation of Consul-General Seward, who has had great experience in Oriental character, and who has made a study of this question. Admiral Rodgers has instructions to take that officer with him in case he returns to China before you. It is not supposed here that you will be able to comply with these instructions before next year, in which case Mr. Seward will probably be at his post. It will also be necessary in making your arrangements to consult the convenience of Admiral Rodgers, and to defer to his superior knowledge of the best season for navigating those waters. The Department relies upon you in fulfilling these instructions, to exercise prudence and discretion to maintain firmly the right of the United States to have its citizens protected, to avoid a conflict by force unless it cannot be avoided without dishonor, and seek in all proper ways the harmonious and friendly assistance of the Chinese Government. You will keep an account of your necessary expenses in carrying out these instructions, and draw upon Messrs. Baring Brothers & Co., of London, for the amount thus expended, and furnish the necessary vouchers therefor.

HAMILTON FISH.

The above are believed to be the only general instructions on the subject since the date of April 20, 1870.

FRENCH NAVAL TACTICS.—NO. IV.

(From the French of Vice-Admiral Gravière.)

HAVING given expression to these general views, we are at liberty to present in a definite form the work which has occupied us for the past two years. We know what ought to be henceforth the great law of our modern tactics. It is simply the old device of our forefathers: "*Honneur au mieux faisant*." Such is the principle which should lie at the base of all our books, that it may become a part of our nature. But if it be important to encourage individual effort, to stimulate activity and enterprise, it must not be forgotten that an assemblage of ships is a collective force intended to move and act as one body—*en masse*. Independent action on the part of individuals would therefore be inadmissible, as productive of weakness if not positive disorder. That we are deeply impressed with this truth is sufficiently shown by the regularity we have endeavored to introduce in the operations of "getting under weigh" and "coming to" of fleets; it would be unjust, therefore, to accuse us of any tendency to ignore tactics. Yet as there exists outside of mere geometrical tactics a sort of natural tactics wonderfully suited to the actual needs of battle, we would defend it against scruples which we cannot but deem exaggerated.

Natural tactics admits of an admiral manœuvring his fleet without signals. To give to the commander-in-chief the full benefits of this advantage, we have changed the station in the centre hitherto assigned him, and have placed him at the head of the line or of one of the wings. By this means we have been able to give greater facility to turning movements. These movements, known as conversions, are not made from an extended front, for which reason it is suggested that the fleet be divided into squadrons of not less than six or more than twelve ships. The squadron is to the fleet what the legion was to the Roman army. In the presence of the enemy each squadron should, under direction of its own particular flag-officer, manœuvre in a manner independently, yet in conformity to the plan of battle previously designated by the commander-in-chief.

Squadrons are broken into divisions; the division be-

ing the tactical unit, and consisting of two or more fighting ships. But once engaged in the heat of battle, neither the squadron nor division commanders by any symbol of superior rank subordinate the captains of single ships.

In the days when the English and Dutch contended for the supremacy of the seas, flagships played an important part. They were then, by their heavier scantling (superior size and weight), proper objects around which to group the attack or defence, the main body of the fleets being composed of vessels of smaller size. But in our days fleets will be more homogeneous. In the thick of the fight the captain will be equal to the chief of squadron, and defeat will be so much the less to be apprehended, since each single element of the fleet must be overcome separately before the entire force can recognize itself as vanquished. Chiefs of squadrons can no longer lead off, remote from the scene of battle, their small fragments of the fleet, nor admirals by some timid signal forfeit the victory already within the grasp of their captains. Indeed, the captains, should the admiral and his lieutenants lack the proper force of character, will gain the battle without them. This burning desire for victory, this feeling of personal responsibility for the result, spreading from one end of the fleet to the other, is worth a hundred times more than all those minute directions by which we vainly strive to regulate future events.

It had pained us to be obliged, in order to support our views, to create a schism and to separate ourselves from our eminent predecessors. Happily, however, we find even in their works the tie which binds us to the past. It was in developing, by an interpretation perfectly admissible, the germ laid down in the General Instructions of 1861 that we have simplified the changes of orders, and given under another name the oblique movements. We would not engage in the labyrinths of delicate and complex questions, without retaining for our guidance the thread of tradition, but we would have incompletely acquitted ourselves of our duty had we not taken into account the progress of science and the lessons of history.

The official code of squadron manœuvres remains as it was; we simply indicate a new method of using it.

As our views may appear clearer to seamen if given in a technical form, we add a few extracts from the General Instructions, destined, if our suggestions be adopted, to serve as a preface to the Signal Book.

NAVY GAZETTE.

REGULAR NAVAL SERVICE.

ORDERED.

AUGUST 3.—Lieutenant-Commander Charles H. Davis, Jr., to the receiving ship *New Hampshire*, to the *Severn*. Assistant Surgeon Henry Stewart, to the *Kansas*. Master Alfred Force, to the *Kansas*.

AUGUST 4.—Lieutenant-Commanders Frederick R. Smith and Henry C. Nields, Lieutenant Robert E. Impey, Masters Willie Swift and Frank W. Nichols, Ensign Louis E. Bixler, Midshipmen Sidney A. Stanton, Perrin Busbee, Wm. A. Marshall, Wm. C. Babcock, Joseph E. Hamrick, Gustavus C. Hamus, James M. Wright, Carlos G. Calkins, John Downes, and Wm. H. Slack, Paymaster Henry M. Meade, Chief Engineer Geo. S. Bright, Second Assistant Engineer T. L. Vanderslice, and Boatswain Robert McDonald, to the *Iroquois* on the 19th inst.

AUGUST 5.—Lieutenant-Commander J. D. Marvin, to report to Chief of Bureau of Ordnance for ordnance duty.

Midshipmen Geo. A. Vail and Robert D. Stevens, to the *Kansas*. Midshipmen Samuel Seabury and Geo. A. Sanderson, to the *Iroquois*.

AUGUST 7.—Assistant Surgeon Benjamin D. Fassig to the Navy-yard, Washington.

Carpenter Robert A. Williams and Sailmaker Francis Boom, to the *Wabash* on the 19th inst.

AUGUST 8.—Passed Assistant Surgeon M. C. Drennan, to the Naval Academy.

DETACHED.

AUGUST 3.—Lieutenant-Commander John McGowan, from the *Terror*, and ordered to return home.

Lieutenant-Commander John Schouler, from the Navy-yard, Boston, and ordered to the *Terror*.

Passed Assistant Surgeon H. J. Babin, from the *Severn*, and placed on waiting orders.

AUGUST 4.—Commander Henry A. Adams, from the Navy-yard, Philadelphia, and ordered to command the *Iroquois*.

Lieutenant Henry E. Nichols, from ordnance duty at Pittsburgh, Pa., and ordered to the *Severn*.

Lieutenant W. W. Gillpatrick, from the *Severn*, and placed on waiting orders.

Lieutenant T. A. Lyon, from the Asiatic Fleet, and placed on waiting orders.

Master E. C. Pendleton, from the *Wasp*, and permit to return to the United States.

Master Adolphus Marx, from the Naval Observatory, and ordered to the *Iroquois*.

Assistant Surgeon A. F. Magruder, from the Navy-yard, Washington, and ordered to the *Iroquois*.

Acting Gunner J. W. Bogert, from the Naval Academy, and ordered to the *Iroquois*.

AUGUST 7.—Captain Robert W. Shufeldt from the Tehuantepec Surveying Expedition, and ordered to command the *Wabash* on the 19th inst.

Lieutenant-Commander Thomas L. Swann, from the Naval Academy, and ordered to the *Wabash* on the 19th inst.

Surgeon J. S. Knight, from the receiving ship *Ohio*, and ordered to the *Iroquois*.

Chief Engineer Charles H. Loring, from special duty at Boston, and ordered to the *Wabash* on the 19th inst.

Gunner Charles W. Homer, from the Navy-yard, New York, and ordered to the *Wabash* on the 19th inst.

AUGUST 8.—Passed Assistant Surgeon D. McMurtrie, from the Naval Academy, and ordered to the Navy-yard, New York.

LIST OF DEATHS

In the Navy of the United States, which have been reported to the Chief of the Bureau of Medicine and Surgery for the week ending August 5, 1871:

Charles L. Guerineau, corporal of marines, July 26, Naval Hospital, Chelsea, Mass.

John Davis, seaman, July 6, U. S. steamer *Juniata*, at Copenhagen, Den.

William Downing, beneficiary, August 1, Naval Asylum, Philadelphia.

David D. Erickson, beneficiary, August 2, Naval Asylum, Philadelphia.

CHANGES IN THE MARINE CORPS.

The following are the changes in the officers of the Marine Corps since last memoranda, viz.:

First Lieutenant Henry C. Cochrane, U. S. Marine Corps.—On the 2d inst. ordered to duty at Marine Barracks, Philadelphia, Pa.

Captain Wm. R. Brown, U. S. Marine Corps.—On the 5th inst. the leave of absence granted June 16, 1871, extended ninety days by order of the Navy Department.

CORRESPONDENCE.

A BEAR FIGHT IN ARIZONA.

To the Editor of the Army and Navy Journal.

SIR: On the 19th of June last, Captain James C. Hunt, First Cavalry, and Captain W. S. Fuller, Twenty-first Infantry, with five mounted men, left Camp Apache, Arizona, for a short visit to the Zuni villages, or Pueblo Indians. The villages lie very nearly one hundred and thirty miles from Camp Apache, on the road to Fort Wingate, New Mexico, perhaps forty miles from that post. Early in the morning, just after the party had crossed the Rio Colorado Chiquito, on the bank of which they had camped the night before, they passed over an open plain that rose in slight undulations covered with a growth of sage brush and scattering scrub oak. On reaching the top of one of the swells an immense bear was discovered about a mile ahead, evidently coming down the trail to the river for water. The bear at the same moment catching sight of the party turned off to his right, and was heading for the foot hills some eight or nine miles distant, as if desirous of gaining the timber. He struck a gait apparently of the clumsiest kind imaginable, but which when tested by the speed of the horses proved that at least for some distance a horse at full speed can hardly keep up with a bear—such ones as we find in the chain of the Rocky Mountains, or the continuations of that range.

By permission of Captain Hunt, Captain Fuller, with Corporal Hyde and Privates Armstrong and Haley, started out their horses to overtake the bear before he could reach the mountains or the rocks and timbers of the foot hills. With horses in good condition, and a free use of spurs, after a chase of four or five miles they succeeded in closing to a few rods distance, or about thirty yards. The party were armed with Spencer carbines and revolvers, with the exception of Captain F., who carried a heavy Army revolver only. Maintaining a distance of twenty or thirty yards, a lively fire from all was opened on Bruin, but without serious effect. It is not so easy as it may appear to hit an object even of considerable magnitude with carbines or revolvers from the saddle when both the rider and the object fired at are moving at a jump and run, and on rough ground at that.

Captain Fuller by good luck first succeeded in sending a ball through Bruin's hind leg. The effect was to cause the brute to run on three legs, with his right hind leg held off the ground, crimsoned with a free flow of blood. The bear at first rather increased his speed, but the wound soon began to tell on him, as he attempted after gaining a little distance to turn and bite at the wounded foot. A shot from Corporal Hyde's carbine again cut him across the ham. The whole party, keeping up their fire, had drawn up to within some twenty yards of him, when he whirled short round to the left and bounded toward the horse of Corporal Hyde. The corporal turned his horse and gave him the spur, but in a wonderfully short time, considering the clumsy movements of the bear, he overtook the horse and caught him by the flanks. The poor horse gave one desperate kick, for an instant throwing off the bear, but in a second more the horse was pulled down on his haunches, and with one motion of his paw the bear knocked Hyde out of the saddle. The horse galloped off wildly, while the corporal, without any weapons, was rolling on the ground struggling for his life in an actual and literal wrestle with a wounded bear.

It was a desperate position and unequal contest on the ground. Captain Fuller and Armstrong reined in their horses, while within three yards of their horses' feet was this enormous bear ferociously biting and tearing the limbs of the unlucky corporal. The weapons of the party had been discharged and were empty; and with the coolest of men it requires some little time to load a Spencer carbine or revolver while in the saddle. Corporal Hyde struggled manfully, striking with his fists and arms down the mouth and throat of the bear, while his own blood ran in streams from his wounds.

The bear rose twice on his hind legs, standing much above the corporal's head, and the two literally wrestled as two men would in a prize fight. The wounded leg of the bear was Hyde's salvation, or the claws in the brute's hind feet would soon have torn out his entrails. In ferocity and wildness nothing could surpass the horrible appearance of the brute, with bloody foam dripping from his jaws, while the poor man called to the party to help him for God's sake or he would die. No one had a load to fire. Armstrong, believing that there was a load in his carbine, jumped off his horse, and placing the muzzle of his piece against the side of the bear pulled the trigger, but it only snapped. The next instant the bear left Hyde and was tumbling Armstrong, biting and tearing him as he had done with Hyde, who was lying covered with blood a few feet distant. It looked in this position of affairs as if two of the party would receive mortal wounds before the others could assist them. But here Haley got one load in his pistol and fired it at the bear. The ball must have cut him, for he bounded away from Armstrong, and, with his leg held up, again ran for the mountains. The two men presented a dreadful sight, with pale faces, streams of blood running down them, and their clothing torn in shreds. Corporal Hyde only said, "Here is my carbine; kill the d—d beast for me, captain, for God's sake!" pointing to his carbine that had been dropped a few yards off when the bear first attacked his horse.

As the rest of the party would soon be up, Captain Fuller and Haley reloaded the carbines, and, having done the best to make Hyde and Armstrong as comfortable as circumstances would admit, remounted and rode after the bear, who was making his way toward the hills, occasionally turning round to lick his hind quarters. The horses, pushed to a run, soon overtook the wounded brute. Riding up to a safe distance, Captain Fuller and Haley fired from their carbines, keeping their horses well in hand to avoid any rush of the bear. After a few shots from each and several attempts of the brute to get at the horses, he turned at bay under a scrub oak, evi-

dently unable to go further and ready to fight. Still the bear's vitality was so great that a dozen more deliberate shots were required, each passing through some part of his body, before his head dropped and he expired.

The conformation of the ground, and the distance ridden in chase of the bear, had concealed these mishaps from the rest of the party, who were greatly surprised at the bloody result of the chase. The bear was of uncommon size, of a brown color, and displayed a boldness and ferocity not credited to that animal by naturalists. The wounds of the men were dressed as well as possible, and with much exertion they were able to reach the Zuni villages the second day after the fight.

The interpreter Dodson was sent on to Fort Wingate for assistance. Colonel Price, commanding that post, at once sent out an ambulance and a hospital steward with medicines and dressings, who carried Hyde and Armstrong to Fort Wingate for treatment. The action of Armstrong to save the life of his friend the corporal, and the persistent fighting of the latter with his fists in his encounter with the bear, have been rarely surpassed for heroism in real life.

LEAVES OF ABSENCE AND DETAILS.

To the Editor of the Army and Navy Journal.

SIR: I don't think the Army ought to let "Infantry" alone remodel the whole Regulations, or the board will imagine it a personal matter. The Regulations do need many changes, and the voice of the many should be heard and attended to by this board, so as to make the Regulations as perfect as possible.

The uniform needs a change, which I hope is one of the great contemplated ideas of high authorities, as I well know they are desired by the Army at large.

The St. Louis Board recommended a change in infantry officers' swords, which seems to be *statu quo*, either from authority or ignorance of what the proper kind, shape, etc., is. Can some one enlighten the benighted?

But the great point I wish to make in this is the question of leaves of absence. I think justice demands that we should have some system in this much-abused department, as also in that of special details. One officer gets innumerable leaves of absence, which, with his special details, keep him almost forever from his company; while another poor comrade, without influence or the good grace of those "around the throne," is compelled to isolate himself most unwillingly on the plains.

There should be a certain number of days allowed every officer for leave of absence during the year, and in case he is unable or does not choose to avail himself of his privilege, it should aggregate to his credit until he desires to take advantage of it. Again, let these regular leaves be granted by the regimental commanders to their subalterns according to rank, and not oblige an officer to send hundreds of miles to a department commander, wasting time, paper, postage, and the services of department commanders. Then only special leaves of absence under extraordinary circumstances need to burden our chief commanders. A little wholesome practical method could be made to work to a charm, and quiet innumerable grumblers.

There ought also to be a change in our staff and special details, so as to equalize the agreeable as well as the hard service of the line, and not crowd it all upon a favored few.

August 1, 1871.

MONTANA.

A COMPANY OF WESTONS.

To the Editor of the Army and Navy Journal.

SIR: It might interest your many readers should they be given through your columns a brief synopsis of a few pleasant walks indulged in, in the line of duty, by a company of infantry since 1867. It is not a record of feats of broil and battle, but merely a history of marching which, beyond the record of events in the Adjutant-General's office, remains unhonored and unsung.

Company C, Thirty-eighth Infantry, left Jefferson Barracks, Missouri, May 12, 1867, part of a battalion of the regiment under command of Major Merriam, Thirty-eighth Infantry. The eastern division of the Union Pacific railroad was then completed only to the town of Saline, Kansas. Its first march was from Saline to Old Fort Hays, Kansas, unimportant to chronicle except as the only march it ever made with other troops or companies.

On the 7th of September, 1867, the company left New Fort Hays, Kansas, en route to New Mexico. It halted three days at Fort Larned, and one day at Fort Dodge and Lyon, and two days at Trinidad, Colorado. On the 7th of October the company was at Fort Union, New Mexico, distant from Fort Hays 525 miles. It made the march from Larned to Dodge by the "dry route." Leaving Larned at 7 A. M., September 13, halting six hours at Big Coon and six hours at Little Coon creek, it arrived at Fort Dodge at 3 A. M., September 14, 61 miles. Leaving Fort Union on the 8th of October, and halting one day at Berlin, New Mexico, it arrived and reported for duty at Fort Craig on the 19th of October, and on the 20th furnished an officer and thirty men for three months' detached service; having made the distance from Hays to Craig, 803 miles (quartermaster's distance), in 33 marching days. Not a man gave out or was injured in the least. The only casualty to the transportation was the death of an "off leader," who calmly laid his form to rest 'neath the azure skies of Colorado, under the shining peak of Trinidad. He fell a victim to an ungovernable appetite. Temperate to fanaticism, he became a prey to too much cold water, a sad instance of indiscretion in that proverbially discreet animal the mule.

The company changed station from Craig to Fort Bayard, New Mexico, in February, 1869, and on this march made its most noteworthy time. Crossing the "jornada" between Craig and Selden, it camped one night at the "Alemán," a half-way station and aforeside water-hole, where Jack Martin, an old Californian and ex-volunteer officer, had dug a deep well and struck water, furnishing an abundance for trains and travellers.

Expecting to find water at the "Point of Rocks," about half way to Selden, the company did not take a very early start, particularly as a fierce wind storm was blowing. Marching about 7 A. M., they arrived at the Point of Rocks only to find the holes perfectly dry. Not having a drop of water in the train, the only recourse was to "pull out" for Selden. The company stacked arms near the parade at Selden just as tattoo ceased beating off, having accomplished the distance of forty-six miles between 7 o'clock A. M. and that time. There was very little straggling. The entire command (except those men with the wagon train) was in camp within an hour. The wagon train arrived about midnight. Three days later the company marched from "Slocums," on the Tucson road to Fort Cummings (33 miles) between sunrise and sunset. It made several long marches on scouts while at Bayard across the Gila river into Arizona.

On the 3d day of October, 1869, the company left Fort Bayard, New Mexico, en route to the Fifth Military District. It remained at Fort Bliss, Texas, eleven days, awaiting the arrival of other companies of the regiment. At length starting alone, and halting one day at Fort Quitman, one day at Fort Davis, two days at Fort Stockton, and one day at Beaver Lake, it arrived at Fort Clark, Texas, on the 14th day of November, 1869, 718 miles in 25 marching days. The total distance marched by the company in "changing station" alone was 1,704 miles. On the 17th the consolidation with Company C, Forty-first Infantry, was completed. The consolidated company has done good marching since, but I only write of one company and one set of men, most of whom are long since discharged. "And the colored troops MARCHED nobly." It has been asked, "What does it all amount to?" or, "What good does it do?" It shows that the better a man can be safely brought to endure all the experiences of the service, under perfect discipline, the better soldier he becomes, and a long march becomes beneficial and easy. We shy our castor. DAISY SMASHER.

UP PUGET SOUND.

To the Editor of the Army and Navy Journal.

SIR: We had slowly steamed up the swollen waters of the Cowlitz river, about as far as our little boat could make headway against the rapid stream; then leaving the river, we took the coach which had come over from Olympia, and with many forebodings of the jolts and bumps in store for us, we started across the country for the head of Puget Sound. It had been raining in that part of the country from a point of time which the memory of man apparently could not reach, as no one appeared to know exactly how long it had been raining; and as the road ran much of the way through a pretty thick forest, it was in a horrible condition. Part of it was corduroy road, and, judging from its present state, it must have been the first road of the kind that old Corduroy made. Sixteen miles of it was travelling enough for one afternoon, so at dusk we stopped at a comfortable-looking farm-house for the night.

The country through which we passed the next morning was mostly covered with timber—and such trees! The few oaks and maples scattered through the forest would have made a creditable show of size if they had been alone, but there they were pigmies among giants. The bright green of their foliage, however, contrasted beautifully with the darker hue of the evergreens; and the pretty mosses that covered their limbs, and trailed downward from the smaller branches, gave them altogether a beautiful appearance.

The fir-trees in many places grew so closely that in looking a short distance ahead they seemed to almost touch each other. Nearly all of them were absolutely straight, and grew for at least a hundred feet with scarcely a branch or blemish. There was nothing along with which to measure their size, but we estimated a large number of them to be at least six feet in diameter, probably eight, and two hundred and fifty feet high. Subsequently we learned that this estimate was probably under the mark, and that trees had been measured that were three hundred feet high. And yet we had never heard of this as being a particularly good place for big trees. The country even where cleared did not strike us as being very good for agricultural purposes; in fact, none of the land we saw in the vicinity of the Sound appeared as good for farming as many of the unoccupied lands further east. It is, however, well adapted for grazing purposes, especially for sheep, and the mutton of the country is of excellent quality. But the chief business of the Sound is evidently the trade in lumber, and the immense quantity and excellent quality of the timber which everywhere covers its shores will keep the business lively for untold years to come.

Later in the day the country became more open, and toward evening we slowly climbed a steep hill, whirled rapidly down the other side, and across a little bridge, the Tumwater dashing over the rocks on our right, and a narrow bay stretching away on our left, the hills of the further shore shadowed in the clear, tranquil water of Puget Sound.

As the steamer was to sail in the night, we had decided to ignore the hotels of Olympia; so we rattled through the streets down to the wharf where the boat was lying, and went aboard at once. A survey of the interior of the Olympia was quite satisfactory, as she proved to be the neatest and most comfortable-looking boat we had seen on the coast.

The usual time for leaving was shortly after midnight, but for some reason the boat did not start on this occasion until early morning. We were on deck at a reasonable hour, and found what we had not seen for nearly a month—a clear, bright morning, with every prospect of its continuance through the day. Although it was in the month of June, the air was rather uncomfortably cool and bracing; the water was clear and almost as smooth as the surface of a mirror. We touched at Steilacoom, a place of a few houses scattered along the shore, a large saw-mill, and a vessel lying near by loading with lumber.

The next stopping place was Seattle, a town which is marked on some of the maps as the Sound terminus of the Northern Pacific Railroad. It is yet questionable, however, if it will reach that distinction, as the actual point where the road will terminate is still a mystery, and a mystery which appears to cause considerable anxiety in the bosoms of the Puget Sounders. Seattle stands on a little bay which dips into the eastern shore, the land on which it is built rising rapidly as it recedes from the water's edge, and making a pretty display of the neat frame cottages, with their steep roofs, and high gables facing to the front. Near the top of the hill stands a school or seminary, a large, handsome-looking building, surmounted by a gilded dome. Looking up the bay, Mount Rainier could be plainly seen more than fifty miles away, a single peak, covered with snow almost to its base, and rising over twelve thousand feet into the sky. On the wharf was a crowd composed of people of all ages and many climes—white men, Chinamen, negroes, and Indians. White men shouting in emphatic English, Chinamen jabbering barbarous Chinese, and Indians grunting mongrel Chinook. One need only close his eyes here, and he could easily imagine himself at a depot in some populous city of the East. "Here's your carriage for the United States Hotel!" "Here's your Occidental carriage! free ride to the hotel. Everybody goes to the Occidental, for it's the only good hotel in town!" Among other passengers who came on board our boat at Seattle was a daughter of the noble red race, one of those beautiful and charming maidens like Pocahontas; only this one was ugly and greasy and dirty, and she didn't have any bright eagle feathers sticking in her head, and instead of having a bow and a beautiful quiver full of arrows slung at her back, she had only a nasty black-looking pack, which probably had nothing in it more romantic than smoked clams or other muck-a-muck.

The mountain scenery is very fine from almost any point on the Sound. A few hours after starting we noticed a strip of cloud lying along the western horizon, its lower edge thin and misty, where it seemed to almost touch the water, its upper border denser and more defined, with here and there white spots shining through the breaks, as if there were banks of sunlit clouds beyond. By and by, as the day wore on, the upper border of the cloud gradually melted away, the white spots grew larger and more distinct, until at length they stood disclosed a long range of mountain peaks, the base still hidden from view, and the peaks looking as if they sprang out from the clouds snow-crowned into the sky. Thus looked the Olympic range—fitly so called.

Above Seattle, Mount St. Helen's could be seen directly astern and nearly a hundred miles away, a single peak rounded like a sugar loaf, and standing alone against the sky. Off to the north-west, near to the British line, Mount Baker was plainly to be seen, more broken and irregular than St. Helen's, but rising to the height of nearly twelve thousand feet. To the south Rainier was still in full view, with a chain of lesser peaks stretching away from it toward Mount Baker; and to the west the peaks of the Olympic range, all white and glistening in the noon-day sun.

The next stopping-place was Port Madison, a little town situated, like most towns on the Sound, on one of the numerous little bays which indent the shores. Here we saw the usual saw-mills and ships loading with lumber. In the harbor was one ship which attracted particular attention. She had been launched at the place only a few days before, having been built of the yellow fir cut on the shore of the Sound, and prepared at one of the mills. She was a ship of about seventeen hundred tons burden, and said to be finely built. She was christened the *Wildwood*.

The timber which grows so large and in such abundance on the shores of the Sound, appears to be particularly adapted for ship-building. A gentleman from Victoria who was on board the boat told us that one spar had been taken to England as a specimen, it being two hundred and twenty-five feet long. It is said that the mills at Port Madison cut planks one hundred and eighty feet in length.

Soon after leaving Port Madison we turned into a long, narrow bay, and near its head came to the town of Port Gamble. Here were the usual saw-mills, only more of them, and the place is said to turn out more lumber than any other on the Sound. There were several vessels loading at the wharfs, and, as we had noticed was the case at nearly every other place on the Sound, they were all square-rigged ships.

A few miles further on, and up another inlet, we came to Port Ludlow, a little town with its mills and ships, and a flag flying over the "Ludlow hotel;" and beyond, a beautiful cottage nestling among shade trees and shrubbery, with a gracefully curved roof, and a pointed gable fronting the shore; and in the distance were Mount Baker, and Rainier, and the Olympic range, growing more and more defined as the declining sun threw them out more clearly against the sky.

The next and last stopping-place is Port Townsend; and here, leaving the steamer to make her way across the Strait of Fuca to Victoria, we shall bid adieu to the waters of Puget Sound.

CHICO.

COMPANY LAUNDRESSES.

To the Editor of the Army and Navy Journal.

SIR: Among the many points that should receive the attention of the board to revise the Army Regulations, there is one that it is to be hoped will not be forgotten. It is the laundress question.

I am sure that every officer who has commanded a post will agree with me that one laundress is more trouble and annoyance to him than a company of men. Especially at frontier posts is this the case. There they know that no officer would have the inhumanity to order them from his territories into the uninhabited and uninhabitable wilds that surround the garrison, so they take all sorts of liberties. Regarding the edicts of the post council, they charge what prices they choose for washing, giving the unhappy possessor of dirty clothes

the option of paying whatever they charge, or of washing for himself—a rather awkward position for an officer, single or married. As a matter of course, they refuse always to wash for an officer who is not attached to the same company as themselves; and should a company commander attempt to exercise his authority, he is met with all sorts of excuses, such as "sickness," "too much work to do for the men," etc.

Then it is claimed by some company commanders that it is for them to say who shall draw rations as laundresses for their company, no matter whether the women wash a garment or not, and that as long as they are satisfied with them, the post commander has no right to interfere.

I hope the board will revise paragraph 1,200, Revised Regulations, so that the status of these ladies will be more explicitly defined, not forgetting that portion authorizing women temporarily absent from their companies to draw rations on certificate, making it obligatory on a company commander to bear his laundresses on the muster roll of his company, and prohibiting issues of rations to those absent more than two months.

I remember arriving once at an old established post where there were some forty laundresses drawing rations on certificates, many of which certificates were from two to eight years old. Having sent some clothing to one of them to be washed, it was promptly returned with the information that "Mrs. Riley hires a woman to do her washing, and won't wash for nobody," which remark was about the substance of the answer received on application to each of the other thirty-nine.

ANCIENT.

ARMY REGULATIONS.—NO. IV.

To the Editor of the Army and Navy Journal.

SIR: I have had occasion to show, in letter No. 2 the roundabout, costly, and absurd system devised by the Inspector-General's Department for inspecting and condemning worn-out property, and suggested that we return to the Regulations of 1863, and allow the post commanders to be the inspectors, as it used to be.

That the necessity of this is apparent should be clear to the meanest business capacity with a very little showing. For example: An officer, invariably of the rank either of colonel or lieutenant-colonel, and of not less than twenty or thirty years' experience, is assigned to the command of such a post as the Presidio Barracks in California, Fort Leavenworth in Kansas, Fort Russell, Wyoming Territory, or we will say one of our large number of sea-coast forts. The buildings under his charge cost in round figures a quarter of a million, the stores of all classes on hand say a quarter of a million more; total, half a million dollars. Add to this that the souls of the post, men, women, and children, under his care and protection, will average not less than 500 human beings, and my readers will form some idea of the magnitude of the responsibility of the commanding officer aforesaid.

Now in his command are several captains, each of whom is responsible for the various items of his company property, amounting in all perhaps to these hundred dollars when new. This is the value of it, mark, when new; when it is ready for inspection it is supposed to have been worn out in the service and not fit for further use. But the post commander, although intrusted with the care of millions of dollars' worth of public property and the lives of hundreds of human beings, cannot be intrusted to examine and inspect this pitiful, paltry lot of worn-out company property; but the public business must go through the delay and cost of postage and stationery no less than five different times, as I had occasion to show you in my second letter, to the grim satisfaction of the vigilant Inspector-General's Department.

All this is bad enough, but my great and first love for red tape and circumlocution is the Quartermaster's Department. This department, together with the Second Auditor's, are so wedded to their idols, thus riveting my attention and commanding my admiration, that I am sure my readers will forgive me if I recur to either of them and dwell for a short period, but very lovingly, upon one of the many eccentricities of red tape of both bureaus. What I now have to say is furnished by an infantry officer, and I vouch for the truth of it. This officer, having a few broken cap letters, numbers, and worn-out knapsacks, together with a few yards of badly-dyed non-commissioned officers' lace, and a few old and worn-out greatcoat straps, submitted them for the action of the inspector, with the view of having them dropped from his C. C. and G. E. returns. The inspector, in due course of time, examined each and all the articles enumerated, but when he came to the miserable woollen lace and worthless worn-out greatcoat straps declined to pass on them, and directed a line to be drawn across the items on the form, thus striking them out. The officer responsible, naturally enough asked why these items could not be inspected and dropped, and pointed the attention of the inspector to the fact that the lace was worthless and the straps worn out. True, replied the inspector; my authority allows me to inspect all the canteens, haversacks, knapsacks, eagles, badges, letters, numbers, tents and poles, mess-kettles and pans, and the company books you may have on hand, and it matters little what the aggregate value of your company property may be, one hundred thousand dollars or only a hundred cents; I can by authority and am willing to inspect; but although this lace and these old straps are only worth when new a total of —, and now are utterly and totally worthless, I have no power to inspect, and if I do, it will be disapproved and the money value thereof charged against you by the Second Auditor's Department at Washington.

Of course the stores were not inspected, and upon further inquiry by this officer, he found that in order to avoid having a "statement of differences" sent him, it was necessary, first, to call on his post commander for a board of survey to fix the responsibility of how the lace came to be badly dyed and the straps to be worn out. Second, the board is called together; they meet in solemn conclave and determine how so much property of such immense value came to be in the condition it is

found. Third, the investigation ended, the proceedings have to be made out in triplicate and sent to the post commanders, who forward them to department headquarters for final action. No; only for further action. Fourth, the papers arrived at department headquarters, they are generally referred to the chief quartermaster for his action, who having placed his endorsement thereon refers them back to department headquarters, where they receive the finishing touch. One or two copies are retained at department headquarters and the balance returned to the officer responsible.

Of course you are prepared to believe that the affair of the lace and straps is ended here. Not at all, my friend. These proceedings so far are only preliminary. The lace and straps have simply gone through the first process and are in a state of gestation; but they are ripe for the action of the inspector, when he is designated at the expiration of the ensuing quarter of the year. So the officer stores away the lace and the straps and awaits patiently the whirling of time and the advent of an inspector. The three months elapsed, the inspector appointed, and all being ready, the officer responsible has to make out the inspection reports in quadruplicate, supposing the preliminary lists made out; and first and last, independently of the affair of the board of survey, the papers connected with the inspection pass through the mail no less than five times, as per description in letter No. 2 of mine. Everything gravely examined and the usual endorsement put on, the lace and straps become fully digested, their worthlessness officially established, and they are ready to be dropped from the officer's return. Thus it will be seen that over three months are consumed; that the papers have to pass through the mail backward and forward twice for the board of survey, and five times to complete the inspection. Postage and stationery, first and last, seven different times. Now estimate the cost including the stationery, the delay, all of which is necessary according to order, but not regulation, to enable an officer to drop from his return a few yards of woollen lace and less than twenty-five pairs of greatcoat straps, which when new were worth a couple of dollars, but now unfit for issue and worthless, and you will then be in a position to admire the simplicity of our Army accounts.

Of course there is some defence for all this, and the ground is that woollen lace and coat straps are clothing and not garrison equipage; but how have these wisacres come to the conclusion that these articles are clothing and a bedsack is not, and therefore a board of survey is necessary for one and not for the other? By what logical deduction the powers that be have spun this scientific theory is known only to the erudite scholars and skilled adepts of the Quartermaster's and Second Auditor's Departments, and is not given to us benighted mortals of the line; for I here assert there is nothing in law or regulation that warrants such an interpretation or fine-spun distinction.

INFANTRY.

BALL OF BATTERY M, FIRST ARTILLERY.

To the Editor of the Army and Navy Journal.

SIR: Your courteous notices of the balls and parties, given by our comrades on the Plains are always read here with interest. Perhaps their perusal has suggested to that portion of the First Artillery stationed at this post, that it would not be just the thing to find themselves surpassed by the cavalry and infantry even in the more gentle accomplishments of the soldier.

However that may be, Battery M had a splendid dinner on the 4th of July, and on the afternoon of that day broached a barrel of ale and invited a large number of guests to a "stag dance," and in the evening improvised a ball to which most of the fair ones were brought through a driving rain, followed, however, by a compensation in the shape of a supper at 2 o'clock the next morning, at which hour the ball broke up.

It seems all this time Battery M was only "getting its hand in," for on the night of the 4th of August the battery gave a ball which was really a splendid affair. Chinese lanterns and illuminations of various devices lighted the approaches to the ball-room, while over the main entrance in large illuminated letters was the word "Welcome." In the supper-room the battle-flag was crossed with the stars and stripes over a shield bearing the date of the organization of the regiment, while around the hall ten other blue shields bore in gilt letters the names of the battles in which the battery has been engaged, from Cherubusco and Chapultepec to the closing scene at Appomattox Court House. Here an elegant repast was spread on the whitest and most elegant cloths, each table being in addition ornamented with flowers. The dancing rooms above were most tastefully decorated with flags and evergreens, and the names of the officers of the battery in silver and gilt. Each guest on entering was presented with a printed programme that would have been a credit to the critical Twenty-third of Brooklyn. After the grand march the ball was formally opened by the officers and their ladies, and from that moment until the reveille gun startled the astonished revellers with the information that day was breaking, the whole party appeared to enjoy themselves to the utmost.

The whole affair was a credit to those concerned, and we trust will prove only a specimen of the entertainments to be given hereafter by Battery M, First Artillery.

X. C.

PLATTSBURGH, N. Y.

A SOLDIERS' monument is to be erected at Charlestown, Mass. It is of Hallowell granite, surmounted by a figure of America holding in each hand a wreath with which she is crowning a soldier and sailor who stand on either hand. The side figures will be eight feet high, and the centre figure ten feet, and elevated three feet above them, the soldier standing at parade rest, and the sailor leaning upon a cutlass. The pedestal will be plain, with panels for names.

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DIAMONDS A SPECIALTY.

IN the presence of Governor JEWELL and staff officers, Adjutant-General MARVIN, Quartermaster-General DICKINSON, Assistant Adjutant-General FOX, and General CRAWFORD, commanding the State Militia, an initial trial of breech-loading rifles was had at New Haven on Wednesday. The following arms were represented: Sharps, Allin, Remington, Barnekov-Greene, Ward-Burton, Winchester, Peabody, and Whitney. Three tests were called for: First, rapidity of fire per minute; second, accuracy, one uninterested person firing each gun five shots; third, accuracy, each gun being fired by its representative. The following results were obtained:

Sharps, fired by George W. Yates, 15 shots, including 4 miss-fires.
Allin, fired by Lyon of Springfield arsenal, 15 shots.
Remington, fired by W. S. Smoot, 16 shots including 1 miss-fire.
Barnekov-Greene, fired by G. W. Greene, 18 shots.
Ward-Burton, fired by M. Kane, 20 shots, including 3 miss-fires.
Winchester (as single-loader), fired by M. Addis, 25 shots.
" (as magazine), " " 37 "
Peabody, fired by Colonel Fox, 10 shots.
Whitney, " " " 9 "

The result of the second test was too inaccurately recorded to warrant reporting.

The third test, at 150 yards distance, each gun having five shots, left the following record:

Sharps, string.....	79
Whitney, ".....	42
Ward-Burton, string.....	23
Remington, ".....	55
Allin, ".....	20
Peabody, ".....	33
Winchester, ".....	38

The Barnekov-Greene, not being sighted properly was not subjected to the third test.

The cartridges provided were the Martin, of 50 calibre, which, being a new production, was not exactly suited to the Remington and Peabody arms. The Winchester fired its own cartridges, of 35 calibre. Lieutenant SMOOT, by request making a second trial with the Remington for rapidity, made 20 shots in one minute.

The only new guns were the Barnekov-Green and the Whitney. The former arm was on this occasion fired for the first time, and certainly made a most promising debut. Its second trial for rapidity showed 20 shots within the minute, while its manager was professionally and practically inexperienced. The strength of its firing-pin action was illustrated by its discharge of cartridges which missed fire in one of the other arms. The novelty of design and simplicity of action which distinguish this gun will claim attention. Its manual is essentially easy—two motions to load, and one to fire; and the cartridge ejection, dropping the empty shell through a vacuum in the breech-action, is unique.

THE representatives in this country of FRIEDRICH KRUPP, Messrs. THOS. PROSSER & Son, write to contradict the statement made by the Berlin correspondent of the *World*, that bronze is to supersede steel for the German field artillery. They say: "We are authorized by Mr. KRUPP to say that this information is not correct; indeed, has no foundation in truth whatever. The correspondent appears to have jumped at conclusions, as no decision on this important subject has yet been rendered. The result of the deliberations of the 'Select Artillery Committee' will be known shortly. In the mean time, we can state, on good authority, that any attempt to introduce bronze for field artillery in Germany has not the least chance of success. During the hurry of the late war with France, these works supplied a large number of guns, 4, 6, and 12-pounders, in various states of workmanship, some completely finished, others as rough blocks of steel, some bored and some in the forged state only. These latter were finished in the government and other workshops, but not according to Mr. KRUPP's system. The breech-loading apparatus of some of these guns have been damaged by straining, but this does not affect in any way the superiority of cast-steel as a gun-metal. Indeed, it should excite no surprise, for some of them, we are informed, fired as many as eight thousand rounds, which bronze certainly would not stand. All the field guns used in this war were of cast-steel."

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THE ARTILLERY QUESTION.

"WE appeal to the observation of all officers of experience," exclaims the author of "A Few Thoughts on Artillery," "whether officers, as a rule, do not gravitate more or less rapidly, but always directly, to a condition of lethargy, from the moment they enter the service? Is it not too often the rule, that the graduate of West Point closes his books finally and forever when he leaves the Academy, vainly imagining that for him there is nothing more worth learning in his profession? Instead of realizing that he in truth has only entered upon the threshold of professional knowledge, and that his most valuable accomplishment is in knowing how to study, he swells the crowd of idlers and drones, and fritters away his time in the most frivolous pursuits. There is with us no spur, as in the scientific corps, to disturb our self-complacency. But a spur is just as essential to prevent us from becoming not only lazy and indifferent ourselves, but an evil example to those who follow us, as stimulants to an indolent ulcer."

It is because we are profoundly convinced of the truth of this statement that we are disposed to second the efforts of the active-minded and ambitious officers in the artillery, as well as in all other branches of the service, to arouse their fellows to a more earnest interest in professional matters. It may be true, as an officer writes us, that "it takes a very hot poker to make an artillery officer squirm now;" but if we cannot arouse the members of the service to a just sense of their own professional shortcomings, we may at least promote a reorganization of our artillery which will introduce new elements of vitality into the corps. The communications we have received in answer to our previous articles on this subject show that there is a very general acknowledgment of the force of General MORGAN'S criticisms. Those artillery officers who hold to the contrary opinion take refuge in silence, and if the Ordnance Corps have anything to urge in answer to the argument for their union with the artillery, they are modest about speaking. As General MORGAN announces the prospective union of the two corps, if any see cause to forbid the banns they should now proclaim it, or henceforth forever hold their peace. We have said that the communications thus far received agree with the "Thoughts on Artillery." But we should not overlook the communication which follows. It is true that it does not question the facts urged in favor of artillery reform, or undertake to answer the arguments presented in that behalf, but, while it by implication admits their force, in the spirit of the sluggard its author exclaims, "A little more sleep, a little more slumber, a little more folding of the hands to sleep." Some might be disposed to suspect that a spirit of irony dictated this communication; but we cannot see why any of the officers for whom the writer speaks should question the genuineness of his advocacy of their cause, when they observe how thorough a comprehension of their true position his argument displays. He says:

It is the dictate of wisdom and experience not to worry over spilled milk, and we commend this ancient saw to the author of "A Few Thoughts on Artillery." He is apparently possessed with a "nightmare of apprehension," to quote his own words, "that the artillery arm of the service is dying of stagnation." This cry is at least as old as the author of the pamphlet referred to, and was piped vigorously by officers now gray in service when they were in the green and callow days of youth. In fact, it is a cry seldom heard from the senior officers of artillery. All this talk about "progress," "schools of instruction," "chief of artillery," and "high standard for appointments and promotions" appropriately belongs to the scientific corps, but pray is it not a little forced when applied to the artillery? Congress having created a special corps, the Ordnance, to attend to the scientific part of artillery (where brain-work is requisite), and another corps, the artillery, to take charge of the practical part (where manual dexterity and knowledge of tactics are chiefly required), why should an artillery officer seek to perfect himself in those duties which devolve

upon Ordnance officers by law and custom? And it may be asked, further, why some half dozen officers—we doubt if there are more—who have an unaccountable idiosyncrasy on this point should be so persistent in forcing their peculiar views upon their brother officers. Let them apply themselves to as many subjects foreign to their duties as they will, but let them not seek to involve the whole arm in a "new departure," which will necessitate a continuous and annoying round of studies, and cut short the hours of recreation which become more and more valuable as we advance in years. As matters go now, a field officer of high rank, having finished his office duties in the morning, can give the remainder of the day to social pleasures, especially if he has adopted the new style of "second in command." The junior officers can hunt, play cards, "go to town," or pass the time in any pleasant amusement. But let the views of these agitators obtain, and we will see old officers school-teachers, and officers of all ages going to school again. The Academy at West Point, not to mention the one at Old Point, is surely enough, without turning every post into a "school of instruction."

Of what use is it to an artillery officer to know what kind of guns are used in foreign countries? We don't use them. If they have anything better than we have, which for one I don't believe, the Ordnance Department will find it out.

Of what use is all this scientific information to a lieutenant in a battery? Will it enable him to tell when his horses are better groomed, or stand longer by his guns? The captain of a battery ought to know more than a lieutenant undoubtedly, but it is difficult to see what essentials are neglected in the light artillery tactics. It is said that artillery officers are sometimes called upon to construct batteries and do other engineer work. They ought not to be. If there are not enough engineer officers for these purposes, let the corps be enlarged, but don't try to crowd all sorts of knowledge into an artillery officer's head. The Jack at all trades is good at none.

The fact is, Mr. Editor, with due respect to the author of the pamphlet, the artillery is well enough off, if let alone. Its officers have performed their duty creditably in two wars under the old *regime* of two drills and a dress parade each day, when the exigencies of service would permit. As for the heavy artillery, we have not been tested there yet, and probably never will be—at least until our fortifications are finished. No nation would be unkind enough to go to war with us under our present disadvantages. We ought in common courtesy to expect at least a year's notice to enable the scientific corps to make things "comfortable" for us. The subject of heavy artillery is greatly magnified by the author of "A Few Thoughts." Rifled guns, of which he says so much, do not yet form any considerable part of the armament of our permanent works, and a smooth-bore 15-inch gun is only an enlargement of the 10-inch. If there is any peculiarity about it, aside from the service of the piece, the Ordnance Department will doubtless inform us concerning it.

And now one word on the question of spilled milk. If all the author of the pamphlet alleges were true, we claim that his views are pernicious, because we can't help ourselves and had better make the most of the situation. The men of influence and reputation as men of brains are chiefly in the scientific and staff corps, and it is to them our legislators are accustomed to look for advice when new legislation regarding the Army is proposed. Will they help the author and his friends to procure any of the changes proposed?

The Ordnance officers are generally conceded to be very clever people, but we doubt if any of them are good-natured enough to help pull others up when there is any danger of the same strain pulling them down. And what security have the engineers that if the author and his friends should succeed in their raid on the Ordnance Department, they would not, in search of fresh fields and pastures new, turn their victorious arms against that corps which has hitherto owned no rival near the throne?

As for the staff corps, it is understood they have always been opposed to the pretensions of the artillery.

We predict that in a few short years this latest advocate of "consolidation," "chief of artillery," etc., will be chiefly concerned about his ease and comfort; whether he has a nice post; if the Inspector-General on his casual visit gives him a "rap"; if his officers worry him by keeping noisy dogs and appealing from his decisions on points of discipline; and if he can afford his regular thirty days' leave. He will order the "second in command" to hear the recitations in the prescribed textbooks, and the second in command will religiously confine himself to the text. He will sign the morning report, and betake himself to his bed, his dinner, or his

drive, forgetful of all this fine talk about "scientific requirements."

Another correspondent, whose communication we had for the moment overlooked, offers us "a few more thoughts on artillery," in which he follows out the suggestion of a consolidation of the artillery and ordnance to what he regards as its legitimate conclusion, in a sarcastic argument for including in the consolidation the Engineer Corps, the infantry, the pay, quartermaster, and medical departments, and even the veterinary surgeons and blacksmiths. We should do injustice to his communication by condensing it; and as we have not space for it here, we will reserve it for another week. We may suggest to our correspondent, however, that it will require a more serious effort than he seems disposed to indulge to answer the arguments in behalf of consolidation presented by McDowell, Schofield, and others in their testimony before the House Military Committee in 1869, and urged with so much force in the "Thoughts on the Artillery." The precise form in which the question of consolidation should present itself practically would give shape to our own opinion for or against it. We should be glad to see any union of the two corps which would result in bringing the artillery up to the higher standard of the ordnance without impairing the efficiency of the latter.

INSTRUCTION FOR THE RISING GENERATION.

RANSOM H. GILLET, "formerly a member of Congress from St. Lawrence county, N. Y., more recently Register and Solicitor of the United States Treasury Department, solicitor for the United States in the Court of Claims, counsellor at law, etc.," has published a work entitled "The Federal Government," the introduction to which announces that the author "was early called into public life in the Federal Government," and that "it was at the commencement of his official life that the author deeply felt the want of such a volume as he has prepared and now offers to the public." Judging from its contents, we are forced to the conviction that this volume, though not offered to the public till 1871, was prepared at a time when its want was "deeply felt" by the author—a period in the infancy, also, of the Federal Government. Its object is "to enable the rising generation to understand the structure of our Government, what officers are employed in its practical operation, and their general duties." In its style there has been a happy adaptation to the humblest intellectual calibre, and in its description of the military establishment the author is evidently unembarrassed by the governing legislation of modern date. A few examples from the text will serve to appraise the value of the "Federal Government," as a book of reference; italics are ours.

On page 288, our Honorable Secretary of War is described as an "unnatural" combination of commercial and military character, and (page 291) "it is now history that he does many things which the President could not authorize." We are informed (page 296) that the Adjutant-General "controls and conducts deserters and prisoners." Such may have been one of his duties during the author's "twenty years' service in Congress;" but, within the memory of the oldest inhabitant of the Retired List, deserters who could be "controlled" and "conducted" were regarded as prisoners, and have been under the charge of provost marshals or other officers of guards. The Commissary-General (page 298) "procures the articles constituting a soldier's ration, which consists of such things as directed by the President." But the act of March 16, 1802, has intervened, and the ration has since, if not previously, been established by law.

On page 303 we find that there is but one company of sappers, miners, and pontoniers. The author refers probably to the bombardiers authorized in 1812, and not abolished till 1821. The battalion of engineer soldiers, having its origin in 1846, has ever since 1863 consisted of five companies. The Chief of Ordnance (page 303) has been let down a peg. "The colonel of ordnance is at the head," etc. He furnishes among other things "horse medicines" and "materials for shoeing." As horse apothecary, however, he seems to divide the honors with the Quartermaster-General (page 297). "Under the denomination of ordnance and ordnance stores are included all common and artillery carriages," etc. (page 303);

and "the corps of artificers, with proper tools, carriages, and apparatus, are organized under the direction of the colonel of ordnance." If these carriages are the correct thing (not too common), the ambition of certain artillerymen is not surprising.

The judges-advocate authorized for the peace establishment by acts of 1866, 1867, and 1869, are eliminated from the "Federal Government." Sad; but Mr. Gilbert will not have them around (page 304-6). He does, however, perpetuate the judges-advocate authorized for armies in the field by the act of July 17, 1862, chapter 201. "A provost-marshal was unknown to the laws of the United States prior to 1863" (page 307). If the author had ever served as a "common soldier," and had preferred the Articles of War to the chaplain's elocution, he would not have forgotten that provost-m Marshals were very well known under the act of April 10, 1806.

"From the earliest ages to the present time, nations have settled many of their controversies by blows intended to be deadly" (page 309); from which statement we derive the valuable information that war is an international assault with intent to kill. On the same page we are told that "the rifled gun and cannon, projecting conical balls with a rotary as well as an advance motion, soon determine the fate of a battle-field." He doesn't seem to be afraid of either Grotius or Benton.

We discover further, on this pregnant page, that a regiment of infantry consists of eight to ten companies, and that "the organization of the artillery and cavalry regiments and companies are somewhat similar in most respects." The sergeants-major have gone by the board, and the "artificers, musicians, and wagoners" are to have "warrants from the colonel of the regiment." He also retains (page 314) the regimental paymaster, an office abolished in 1821.

Asserting that there are ten brigadier-generals in the Army, each is given "a staff to aid him who rank as captains." Five major-generals are claimed with "a staff who rank as majors," and we are told that "formerly a major-general was the highest officer in the field." Mr. GILLET has forgotten that "once upon a time" the highest officer in or out of the field was a lieutenant-colonel.

Fifteen bands have a silent existence on the pages of this treatise; there is but one of them, however, that dares toot a horn within the hearing of the Paymaster-General.

On page 312 we are informed that "the office of ensign, formerly the lowest grade of commissioned officers, has recently been abolished." Here we have data upon which to ascertain approximately the date of the preparation of this volume, the recent abolition of the office having occurred in 1815. Our second lieutenants will be somewhat surprised to learn in this connection that it is now their duty to be "the bearer of the ensign, standard, or colors, as in the Greek, Roman, French, and other armies."

That the author finds "it is impossible to understand what expense an officer in the Army occasions to the Government" (page 317), will hardly surprise the reader of his book; but in view of his protracted service in Congress it is no longer difficult to understand why our military legislation demands constant patching, nor is it to be wondered at that, as appears on page 131, the President, and "some or all of his cabinet," make it an especial point to attend the funerals of members of Congress.

THE killing and wounding of two hundred men, women, and children, by the explosion of the boiler of the *Westfield*, a Staten Island ferry-boat, just as it was leaving its slip crowded with Sunday excursionists, is leading to a very thorough investigation into the causes of such disasters. Various theories are presented by different engineers, Mr. NORMAN WIARD appearing among others with his theory of unequal expansion, which he presented with considerable force, though he was not quite happy in endeavoring to account for the fact that a boiler should explode under conditions to which it must have been frequently subjected during the nine years it had been in use. Mr. WIARD thinks no boiler safe from this force of unequal expansion, but he has an attachment for boilers which may be applied to all forms, and which, as he claims, "keeps all parts of the boiler iron, the steam, and the water exactly at the same temperature." "I have applied

it," he testified, "on locomotives, and have ridden 18,000 miles on such engines with the water from two to eight inches below the crown sheet, while the pressure of the steam was 120 pounds, with a white-heat coal fire; and by having thermometers applied, I have demonstrated that the greatest difference of temperature was not more than 8 deg. between the bottom and top of the boiler at any time."

The character of the inspections of boilers by the Treasury Department officials is being thoroughly exposed by this investigation. One witness, an inspector, testifies that it is the custom of inspectors to leave their clerks to sign as well as to fill out the certificates, and a former manager of the Staten Island ferry adds his testimony in a published letter to this and other evidence, that the official inspection of boilers, so far from being what it should be, is the merest sham. The certificate as to the amount of steam a boiler can carry is based upon its age rather than any positive inspection of its condition. The pressure test is all that is ever applied, as it is neither easy nor clean work to go inside the boiler furnaces, ash-pits, back connections, and large flues to apply the hammer, and the inspectors of course prefer a more agreeable way of doing their work.

The evidence tends to prove also the unreliability of the steam gauges in general use, and we have collateral evidence of this in the result of a test of steam gauges at Manchester and Wolverhampton, in England, during the past three years. Some were as much as 30 lbs. out of the way, and all but nine out of fifty-two examined in 1869 were wrong, only eight out of 120 right in 1870, and this year only twenty out of ninety-three, the others varying from 46 lbs. to 58 lbs., the test gauge standing at 50 lbs. It is true that the error is usually on the safe side; but if we are to have steam gauges at all they should be correct, or engineers will disregard them altogether.

WE are glad to learn that the Army and Navy branch of the St. Louis Mutual Life Insurance Company is now an established success, the number of one hundred policies required by the home office for its establishment having already been issued, and others in addition to this number. Officers who have signified their desire for insurance, and who have applied for blanks, are requested therefore to forward them as soon as possible. We have already expressed our opinion of this enterprise at sufficient length, and congratulate our officers upon the success of this attempt to make them independent of the exactions to which they have been so long subjected by other companies. We have had some personal experience of the manner in which business is conducted by some insurance companies, notably by a Providence company, the Economical, which, we regret to say, numbers so excellent a soldier and so honorable a gentleman as BURNSIDE among its directors. One unlucky naval officer, who was persuaded to take a policy in this company, found himself in Ludlow street jail as the result of some failure to comply with the demands of its agent. We are not familiar with the merits of the case, but we know this fact, and are inclined from our own observations to believe that the officer was in the right and the company in the wrong. They certainly have a most strange and unaccountable way of doing business, the president or the secretary, whichever may be the final arbiter of disputes between agents and policy-holders, being always inconveniently or conveniently absent whenever called upon to determine any perplexing question submitted to his decision.

We mention this as a warning to officers, being disposed, after having paid for our own experience, to make it available for the benefit of others. We have long believed that any company which was disposed to deal liberally and fairly with officers, as the St. Louis company seems to be, would find their account in so doing. We are glad to record the success of its enterprise thus far, which is due to the fact that the organization of the Army and Navy branch of the company has been in the hands of men who understand military men and are disposed to consider their necessities and their peculiarities. The policies issued by the St. Louis company stipulate on their face what has been promised in the circular, and so far as we can learn have given satisfaction.

FRANKFORD ARSENAL, PHILADELPHIA.

FRANKFORD Arsenal lies within the limits of Philadelphia, in an open, level country, about thirty-six feet above the level of the Atlantic Ocean, and is 40° N. lat. and 77.08° W. long. from Greenwich, or five miles in a northeasterly direction from the State-House in Philadelphia, about a quarter of a mile south of the Philadelphia and Trenton Railroad, and is bounded on its southeast end by the Delaware river, south and southwest by the Frankford creek.

The arsenal grounds cover an area of 62 acres and 82 square rods. The first purchase was made in 1816 of something over twenty acres. In 1837 eight acres were added, and in 1850 the third and final purchase, 33 acres and 83 square rods, was made. The arsenal grounds are separated from Bridge street by a stone wall nine feet in height, two feet in thickness, and 550 feet in length, and a nine-foot iron railing of 670 feet in length, while the eastern limit is bounded by a close-boarded fence 1,535 feet in length. A wall similar to that on Bridge street, 1,535 feet in length, separates the grounds from Tacony road, and a 3,835-foot wall, extending above the high-water mark, encloses the grounds along the Delaware river and Frankford creek.

In 1816 Captain John H. Reese was in command of the arsenal, which then consisted of storehouses for the protection of small arms, etc. The number of enlisted men in 1816 was twenty-one; they were enlisted for five years, and employed as carriage-makers, armorers, artificers, and laborers. From the time of its establishment to 1851 the arsenal was exclusively an arsenal for repairs. Since that time it has been designated an arsenal for construction, and is now one of the most important arsenals in the United States. The smallest number of civilians ever employed here was one; the largest, 1,250, in 1864. Large numbers of men, women, and children were employed during the Rebellion in making small-arm and fixed ammunition. The principal articles now manufactured are the metallic cartridges, of which we will soon speak.

Upon the grounds there are about sixty buildings. The barracks for the soldiers are built of brick on a brownstone foundation, and are 100 by 40 feet in size, and two stories and a basement high. There are large airy buildings for married soldiers, pretty and comfortable officers' quarters, hospital, guardhouse, etc.; an immense building, erected in 1865, to facilitate the manufacture of ammunition, but now used as a storehouse; two large storehouses for cavalry, infantry, and artillery equipments; several large buildings for manufacturing purposes; frame buildings filled with ammunition; other buildings beneath which saltpetre and sulphur are stored; a fine, large laboratory, etc. The cellars of the storehouses are filled with lead.

Then there are two powder magazines, one for the storage of musket powder, and the other for percussion powder. The former is built of brick, and is 52 feet by 34 feet in size, one and a half stories high, and for its protection is surrounded by high ramparts of earth. It contains 500 barrels of powder, and is capable of holding 1,600 barrels, each weighing 100 pounds. A few hundred yards from this building is a smaller one, built of brick. It covers a cistern partly filled with water, in which are placed jars containing the percussion powder, which has more than thirty times the explosive force of the common musket powder. It is necessary to keep it continually moist, and where nothing can reach it, in order to avoid an explosion, which, if it occurred, would be inconceivably terrific in its nature. Another cistern, 14 by 14 feet, is used also for storing the percussion powder.

Most of the buildings at the arsenal are built of stone and brick, and several are fire-proof. They are handsomely ornamented, and improve the aspect of the place greatly. The grounds between the buildings are either cultivated as gardens with nice enclosures, or as lawns. Numerous shade-trees are planted all over the grounds. Twenty-two gas lanterns are distributed over the arsenal. The place has been much improved since its establishment, and will be more so for years to come.

MANUFACTURE OF METALLIC CARTRIDGES.*

The manufacture of metallic-case cartridges was undertaken at this arsenal in Oct., 1866, but for some time this work was only experimental. Within the last few years the plan of manufacture has not only been perfected, but the machinery employed therein has been brought to the very highest point of mechanical skill, and is really wonderful. The cartridges manufactured here are chiefly used for the Springfield breech-loading rifle. The cartridge adopted by the Government is known as the "centre fire," possessing great superiority over the "rim fire." By concentrating percussion composition in the centre of the head, the quantity is reduced to a minimum, less than one-fourth of what is required to prime the entire circumference in the rim-fire. The regulation cartridge consists of a copper case, seventy grains of musket powder, a tin-plate cup (now made of copper), half grain of percussion composition, and a lubricated lead bullet weighing 450 grains. The case is a copper tube, slightly conical, with a rim at the closed end to facilitate its withdrawal from the chamber of the gun after firing. The percussion composition is deposited in a small shallow recess made on the outside of a copper-plate cup, which is placed within the copper case and pressed snugly against its closed end. Two vents at the extremities of a diameter of the recess communicate the flame from the fulminate to the powder charge. The bullet enters more than half its length into the case,

that the lubricant in the grooves may be entirely covered and protected; and to render the cartridge water-proof, the edge of the case is pressed hard against the bullet.

The process of manufacture at the arsenal is very attractive. The cases are made by punching disks from a copper strip, which are then pressed into cups, and, by going through three single-action presses, are drawn out to the required length at the rate of seventy-five a minute. The tubes then pass through a trimming machine, which cuts them to a required length, leaving clean, smooth edges. The case is then placed under another instrument, which quickly develops the rim or head, and it is then finished. The anvil cups, which hold the fulminate, must be sufficiently rigid to resist the blow of the hammer, and are made from sheets of copper, and are brought to the necessary state of perfection by other machines. The priming operation then succeeds. The percussion composition, of the consistency of thick paste, is deposited in the recess or cavity of the cup by the priming machine, a very ingenious piece of mechanism, that performs this work with the greatest accuracy and perfect safety, and primes at the rate of thirty a minute. While the composition is still moist, the primed caps are put into the headed cases and crimped in position. The cases are now loaded with powder and bullet by means of a curious machine, consisting of a revolving circular plate with holes or receivers, and a hopper and powder measure. The cases and bullets are fed on revolving plates, thirty-five a minute. The former are lifted into the receivers, pass under the hopper and measure for a charge of powder, and then under the bullet-feeder for a lubricated bullet. In order to insure a full charge of powder in each cartridge, the machine is provided with a bell which gives notice to the operative of any failure in this particular. The edge of the case is then crimped on the bullet in a very simple manner. The powder is placed in a paste-board hopper about two feet above the machine, and is fed to the cases through a paper tube one inch in diameter. The hopper and tube stand inside of a large conical shield of boiler-iron.

Accidents are only possible during the process of manufacture with the loading machine, and every precaution has been taken to provide against their occurrence. As the machine is now made and arranged, the explosion of one cartridge may communicate fire to the few charged cases near it without danger. The entire charge of powder in the hopper may be thus exploded without the possibility of injury either to the operative or to the machine, as the hopper and tube offer but slight resistance to the action of the gases that expend their forces in every direction without affecting the stability of the protecting shield. This has been proved by experimentally exploding full charges of two and a half pounds of powder in the hopper itself. But the explosion of a cartridge in the operation of loading is of very rare occurrence, for out of nearly five millions loaded in the past six months, only two have exploded prematurely, resulting in no damage whatever. After loading, the cartridges are packed in boxes and placed in paper packages and wooden boxes for storage or issue.

There are at the arsenal a large number of both paper and metallic cartridges. The employees manufacture the metallic ammunition at the rate of 10,000 a day, and in case of emergency have at present machinery enough to turn out 100,000 in eight hours. One hundred and fifty civilians are now employed at the arsenal. Quite a number of skilled machinists are busy making machinery for the fabrication of metallic cartridges. The Government property, including the buildings, is valued at \$5,832,440 78.

Besides the thousands of shells, and shots, and various patterns of guns, are French, English, and Mexican trophies, used to ornament the grounds. There is a building at the place known as the proof-house. This is a department of great importance. Experiments are made there with various patterns of small arms and ammunition, to investigate the different questions that arise with regard to their manufacture. Among these are the initial velocity of the balls, pressure of the powder on the gun, the influence of different systems of rifling on the flight of the projectiles, the determining the proper proportion of weight of charge and bullet, and many other questions of importance.

The cartridge, when finished, is 2.285 inches in length, and weighs 680½ grains. The mean initial velocity of the regulation bullet, with the metallic centre-fire cartridge, from a Springfield breech-loading rifle musket, measured on the arsenal grounds by the Schultz ballistic chronoscope, was 1,353 feet a second, the charge being 70 grains of powder; with 100 grains the mean velocity was 1,684 feet. The materials required for 100,000 cartridges are 2,632 pounds of sheet copper, 667 pounds sheet tin plate (copper is now used instead), 6,500 pounds lead, 60 pounds lubricant for bullets, 1,000 pounds musket powder, 7½ pounds percussion composition.

The percussion composition consists of 35 parts of fulminate of mercury, 16 of chlorate of potassa, 45 of glass dust, two of gum Arabic, and two of gum tragacanth. These are mixed without danger by using the fulminate in a moist state.

A word about the Springfield breech-loader. For the last few years there has been a most earnest rivalry by the nations of Europe and our own to secure the most effective and at the same time simplest form of small arm. Prussia, France, and America have for years been laboring to secure this kind of small arm, and the result is the needle-gun, the Chassepot, and the Springfield rifle. During the Franco-Prussian war the two former had a fair trial, and the result is that neither is as good in point of effectiveness, accuracy, and simplicity of construction as the Springfield breech-loading rifle musket.

The following is a list of the commanding officers since the establishment of Frankford Arsenal:

Captain Joseph H. Reese, from 1816 to 1821.
Lieutenant M. Thomas, from 1821 to 1824.
Lieutenant T. I. Baird, from 1824 to 1827.
Lieutenant C. M. Eakin, from 1827 to 1828.
Lieutenant C. Mellon, from 1828 to 1830.
Brevet Lieutenant-Colonel J. B. Wallach, from 1830 to 1832.
Brevet Lieutenant-Colonel W. I. Worth, from 1832 to 1835.
Captain Alfred Mordecai, from 1835 to 1838.

Captain (now General) G. D. Ramsay, from 1838 to 1845.
Major H. K. Craig, part of 1845 (went to Mexico).
Lieutenant A. H. Dearborn, from 1845 to 1848.
Lieutenant L. A. B. Wallach, part of 1848.
Brevet Major G. D. Ramsay, from 1848 to 1859.
Brevet Major P. V. Hagner, from 1851 to 1860.
Captain Grogan, from 1860 to 1861 (resigned).
Lieutenant T. Y. Treadwell, from 1861 to 1862.
Major T. T. F. Laidley, from 1862 to 1864.
Brevet Lieutenant-Colonel S. V. Benet, from 1864 to 1869.

Major and Brevet Lieutenant-Colonel T. J. Treadwell is in command of the arsenal since October, 1869. His assistants are Captain J. P. Farley, Lieutenant William Prince, and Lieutenant C. E. Dutton, all of the Ordnance Corps. Dr. Robert Burns is in charge of the post hospital, and has been so for over twenty-five years. George Kober is the hospital steward. There is a detachment of ordnance (enlisted men) stationed here, numbering thirty; and as the writer of this has seen several articles in the ARMY AND NAVY JOURNAL recommending the abolishment of the Ordnance Corps, he deems it proper to advise the writers of these articles to visit the different arsenals and see for themselves whether or not the Ordnance Corps is of any use to the Government. Even a second-class private performs, besides guard duty, duties for which the Government would have to pay a civilian from \$2 to \$3 a day.

THE TEMPERATURE OF THE SUN.

WE have before alluded to the investigations of Captain John Ericsson as to the nature and intensity of solar heat. *Nature*, one of the youngest but ablest of the English scientific papers, publishes a communication from Captain Ericsson, in which, in answer to the assertion in Father Secchi's work on the sun, that its temperature reaches 10,000,000 deg. cent., he says:

Observations conducted in lat. 40 deg. 42 min., with an actinometer (a drawing of which has been published in *Engineering*), have enabled me to ascertain, with desirable accuracy, the intensity of solar radiation for each degree of the sun's zenith distance from 17 to 75 deg. The atmospheric depth at the first mentioned zenith distance being only 0.046 greater than the vertical atmospheric depth, I have demonstrated, by prolonging the curve constructed agreeably to the observations referred to, that the intensity of solar radiation on the ecliptic is 67.20 deg. Fahr. at the time when the earth passes the aphelion. The accompanying table, the result of two years of observations, shows the atmospheric depth and the intensity of solar radiation for each degree from the vertical to 75 deg. zenith distance. The ratio of diminution of intensity of the radiant heat during the passage of the rays through the atmosphere being accurately defined by this table, it has been easy to calculate that the amount of retardation of the radiant heat on the ecliptic is 0.207, or 17.64 deg. Fahr. Adding this loss of energy to the amount of observed radiant heat, it will be found that the intensity of solar radiation at the boundary of our atmosphere when the earth passes the aphelion corresponds with a thermometric interval of 17.64 + 67.20 = 84.84 deg. on the Fahrenheit scale. Now, the aphelion distance of the earth is 218.1 times greater than the radius of the sun's photosphere; hence, basing our calculations on the established truth that the intensities are inversely as the areas over which the rays are dispersed, we prove that the temperature of the photosphere is 218.1² × 84.84 deg. = 4,035,584 deg. Fahr. And if we then add the amount of loss of intensity attending the passage of the rays through the solar envelope, we establish, with absolute certainty, the temperature to which a thermometer will be subjected if "dipped inside the solar envelope in contact with the photosphere."

With reference to the retardation of the rays in passing through the solar envelope, we possess practical data of such a nature that the solution of the problem is by no means mere hypothesis. We know that the density of atmospheric air would be reduced to one-eightiethousandth of the ordinary density if subjected to a temperature of 4,000,000 deg. Fahr.; hence, if we assume that the solar envelope consists chiefly of hydrogen, it may be shown, due allowance being made for the superior attraction of the sun's mass, that the density of the terrestrial atmosphere at equal depth from the boundary is fully 2,000 times greater than that of the solar envelope. Accordingly, as the sun's rays lose only 17.6 deg. in passing vertically through our cold atmosphere, it may be demonstrated that the loss of energy during the passage of the rays through a transparent solar envelope 80,000 miles in depth from the photosphere, cannot exceed 0.01, or 40,000 deg. Fahr. Let us be careful not to confound this diminution of energy with the reduction of temperature consequent on the dispersion of the rays as they recede from the photosphere during their course through the solar envelope. The reduction of temperature attending dispersion obviously does not involve any diminution of mechanical energy. It would be waste of time to enter on any further demonstration in refutation of the extravagant assumption that a thermometer in contact with the photosphere would indicate some 12,000,000 deg. Fahr. higher temperature than that which we have established on the basis of the known distance and radius of the sun's photosphere, and the ascertained radiant intensity at the boundary of the earth's atmosphere. Nor need we point out the inconsistency of the doctrine that the sun's photosphere possesses less radiant power than incandescent terrestrial substances, such, for instance, as iron and carburetted hydrogen. But the advocates of high solar temperature may urge that the law, agreeably to which the temperature of 4,000,000 deg. Fahr. has been determined, is mere theory, which, although true for distances of a few feet, may be wholly erroneous when the radiator is millions of miles away.

It has been one of the principal objects of my researches connected with solar heat, during the last three years, to endeavor to determine this question. Accordingly, the difference of intensity of solar radiation at midsummer and midwinter has been particularly observed. Fortunately, the eccentricity of the earth's orbit is sufficient to produce a marked difference of intensity at different seasons; but, on the other hand, the

* Information taken from one of the Ordnance Memoranda.

varying depths of the atmosphere resulting from the varying inclination of the earth's axis, apart from the varying distance between the sun and the earth, present serious obstacles. My observations, as before mentioned, have been conducted in lat. 40 deg. 43 min., hence 17 deg. 12 min. from the ecliptic at the summer solstice, and 64 deg. 12 min. at the winter solstice. Accordingly, the depth of atmosphere has varied during the investigations in the ratio of 1.04 to 2.25, thus rendering comparisons between the actual intensities very difficult. A series of observations made at different hours and seasons has ultimately enabled me to construct the curve before referred to, defining the maximum intensity of the sun's radiant heat for all latitudes at the time when the earth passes the aphelion; likewise defining the retardation of solar intensity for all zenith distances not exceeding 75 deg. Evidently an accurate knowledge of the solar intensity corresponding with given zenith distances, removes the obstacles attending the varying inclination of the axis of the earth. The variation of intensity consequent on the eccentricity of the earth's orbit has also been accurately determined for each day in the year. The details not being immediately connected with the subject under consideration, it will suffice to state that actinometer observations conducted under very favorable circumstances, January 7, 1871, proved the sun's radiant heat to be 57.25 deg. Fahr., the zenith distance being 63 deg. 15 min. Referring to the table, it will be seen that for equal zenith distance—63 deg. 15 min.—the temperature produced by solar radiation is only 51.77 deg. when the earth passes the aphelion. An increase of solar intensity of 57.25—51.77=5.48 deg., when the earth is in perihelion, has therefore been established. This important fact enables us to test on a grand scale the correctness of our assumption that the intensity of solar radiation diminishes in the inverse ratio of the area over which the rays are dispersed.

The aphelion distance of the earth being 218.1 times greater than the radius of the sun's photosphere, while the perihelion distance is 210.9 times that radius, the temperatures produced by solar radiation at the boundary of the earth's atmosphere at midsummer and at mid-winter will be inversely as 218.1²:210.9². Consequently, as the ascertained maximum temperature at the former period is 84.84 deg. Fahr., the temperature produced by solar radiation at the latter period will be

$$\frac{218.1^2 \times 84.84}{210.9^2}$$

90.72° Fahr. Let us ascertain if this theoretical temperature corresponds with actual fact. Our table shows that the diminution of solar intensity attending the passage of the rays through the atmosphere, when the zenith distance is 63 deg. 15 min., amounts to 15.43 deg. in addition to the diminution of 17.64 deg. on the ecliptic, together 33.07 deg. Adding this to the temperature 57.25 deg., observed January 7, 1871, we establish the fact that the temperature at the boundary of the atmosphere is 90.32 deg. Fahr. Agreeably to the foregoing theoretical determination, the temperature ought to be 90.72 deg., difference = 0.4 deg. Fahr. This discrepancy is accounted for by the fact that the sky, although unusually clear, was not quite free from cirrus haze on the day of observation, as proved by the indication of the solar calorimeter, an instrument by which the presence of any obstruction in the atmosphere is ascertained with absolute certainty. In addition to the proof thus furnished in support of the theory on which our calculations are based, that the temperature at the surface of the sun's photosphere does not much exceed 4,000,000 deg. Fahr., other tests have been adopted with nearly identical results, an account of which, together with necessary delineations, has been published in *Engineering*. These tests prove that, unless the photosphere of the sun possesses relatively less radiating power than incandescent cast-iron, or metallic substances coated with lampblack, and maintained at ordinary boiling heat, the temperature indicated by a thermometer "dipped inside the solar envelope in contact with the photosphere," will not exceed 4,100,000 deg. Fahr.

Table showing the depth of atmosphere, and intensity of solar radiation, for each degree of zenith distance, when the earth passes the aphelion.

Zenith Distance.	Depth of Atmosphere.	Maximum Intensity.	Zenith Distance.	Depth of Atmosphere.	Maximum Intensity.
Deg.		Fahr.	Deg.		Fahr.
0	1.000	67.20	38	1.265	62.11
1	1.009	67.20	39	1.283	61.81
2	1.018	67.19	40	1.302	61.50
3	1.027	67.18	41	1.322	61.19
4	1.036	67.16	42	1.342	60.88
5	1.045	67.12	43	1.363	60.57
6	1.055	67.08	44	1.384	60.25
7	1.067	67.02	45	1.406	59.93
8	1.079	66.96	46	1.431	59.60
9	1.093	66.90	47	1.457	59.25
10	1.016	66.84	48	1.485	58.88
11	1.019	66.77	49	1.514	58.51
12	1.023	66.70	50	1.545	58.12
13	1.027	66.62	51	1.577	57.72
14	1.031	66.54	52	1.612	57.31
15	1.035	66.44	53	1.648	56.89
16	1.041	66.33	54	1.686	56.46
17	1.049	66.21	55	1.726	56.02
18	1.051	66.08	56	1.769	55.56
19	1.057	65.95	57	1.815	55.09
20	1.063	65.82	58	1.864	54.60
21	1.070	65.68	59	1.916	54.10
22	1.077	65.53	60	1.970	53.58
23	1.085	65.38	61	2.027	53.05
24	1.093	65.22	62	2.088	52.50
25	1.102	65.04	63	2.164	51.90
26	1.111	64.85	64	2.235	51.40
27	1.121	64.67	65	2.312	50.81
28	1.132	64.48	66	2.398	50.20
29	1.141	64.28	67	2.490	49.57
30	1.152	64.07	68	2.591	48.91
31	1.164	63.85	69	2.701	48.25
32	1.176	63.63	70	2.821	47.55
33	1.189	63.40	71	2.952	46.84
34	1.203	63.16	72	3.097	46.12
35	1.217	62.92	73	3.255	45.37
36	1.232	62.67	74	3.428	44.60
37	1.248	62.40	75	3.624	43.78

J. ERICSSON.

CAUSES OF THE FRENCH DEFEATS.

THE *Revue des Questions Historiques* contains an article by Leon Gautier, in which he examines the cause of the French defeats with much ingenious good sense. They are to be ascribed, he says, not to the good luck of the enemy, but to the internal decay of France. The victories of Germany were owing to the unquestionable genius of General von Moltke, but the incredible ignorance of the officers opposed to him rendered his task comparatively easy. "Our young men," he continues, "came from the Polytechnic School or St. Cyr full of fire and intelligence, but their brilliant qualities were almost immediately extinguished by the atmosphere of garrison life. A junior lieutenant of twenty-five years was soon as completely used up as the oldest captain in his regiment, and that is saying a great deal. Almost everywhere our officers spent seven-eighths of the day in the *cafés* and the theatres. Absinthe before breakfast, coffee with its concomitants after every meal, lounging, billiards, and ennui between breakfast and dinner, and the theatre in the evening; such, with a few brilliant exceptions, was the life of the officers whom we opposed to Prussia.

"In the Polytechnic School the young men were stimulated by the hope of getting good marks, so it was the fashion to work there; but at the *Ecole d'Application* in Metz the old zeal quickly cooled down. I believe I do not err in saying that the German officers who were sent to Metz to attend the courses were the most diligent students. The state of St. Cyr was no better; those who aspired to some post or other worked diligently till they had gained it, but then their diligence ceased. Some of the cleverest, who hoped to reach the general staff, exerted themselves, it is true, to retain their position among the thirty best scholars, but that was the utmost. Geography and literature were more especially despised and hated. The highest officer set the worst example in this respect. The ex-emperor was himself distinguished by his gross ignorance of geography. For the truth of the following anecdote I can vouch: Some time after the commencement of the Mexican war, Napoleon III. requested to have Vera Cruz and Puebla pointed out on the map.

"Too many of the generals treated science with utter contempt. When General Frossard visited the archives of the Haute-Marne, in his capacity of President of the Council-General, he inquired, in my presence: 'Why are not the half of these old papers burned?' Now, the archives of Chaumont are extraordinarily rich in documents illustrating the ancient history and geography of France, and General Frossard was an officer of engineers, and afterwards appointed tutor to the Prince Imperial. The war of 1870 was a terrible lesson to these generals, who were beaten although they were as brave as they were ignorant. Opposed to us was a nation which makes war scientifically. The Prussian fights with the same precision and method as he criticises a text. We said: 'Bah! we have our mitrailleuses, and our zouaves, and we shall be in Berlin on the 15th of August.' Every one knows what followed. On the 4th of August the unfortunate General Douay died at Weissenburg. It was only the day before that he for the first time consented to look at the map.

"A short time before Sedan one of our generals was walking with a friend of mine on the bank of a large river, and asked: 'What is the name of this water?' It was the Meuse. He knew nothing about it. Another asked about the same time how far Metz was from the frontier; another whether Thionville lay on the Rhine. Another asked his soldiers at Neuville the name of the place which he had heroically held against the enemy for the whole day. The Prussians, on the other hand, know geography. They carry their maps in their heads as well as in their pockets. One of my friends told me the following incident: In the neighborhood of Amiens the Prussians entered a small village with only a single street. They searched up and down, and at last the leader said to one of the inhabitants: 'There must be a footpath here which will save us a part of the distance. You have obliterated every trace of it, but we must find it.' He was right. I do not know how things were managed at Brussels during the peace negotiations, but I tremble when I think of the line of demarcation. I am convinced that in the Vosges the Prussians have sought out all the strategical points and high table-lands which form the best military positions, and our scandalous ignorance must have furthered their intentions. They know these mountains as if they had possessed them for a thousand years, and they have cast their eyes on the natural fortresses which they consider almost impregnable." M. Gautier adds that the only cure for the evils he has pointed out is hard work. He also insists on the necessity of reforming the whole educational system of France. It must, in his opinion, be decentralized. "We must change our whole university system," he continues, "or we are lost. The universities are the strength of Germany, and the secret of her triumphs. We ought to have twenty universities, in France, and we must have them soon. There are also abuses of which we must free ourselves. The most dangerous of these is the rhetoric so fashionable in all the faculties of the *Collège de France* and the Sorbonne. In France the lectures are only displays of eloquence. The lecturer desires to have a brilliant audience of ladies and gentlemen. If he does not enjoy the privilege of having ladies sitting at his feet, he appeals to the political opinions of the young men who listen to him. He studies closely the turns of his discourse; he overflows with wit, satire, and covert attacks. His discourse is charming, but uninteresting. We leave the hall ignorant though delighted. All this must be abandoned. The gates of our universities ought to bear the inscription: 'No admission for brilliant lecturers.'"

A writer in *Macmillan's Magazine* adds his testimony to the same effect:

"Of the French commissioned officers I shall say but little, since both in their virtues and their vices they differ but slightly from the common soldiers; while the non-commissioned officers are virtually identical with

the mass of the army. The French officers certainly do not strike one by that intelligence and good breeding which is so obvious among the Germans. Many of them have been promoted from the ranks, more for courage than for ability or knowledge. They are all brave, some of them models of courtesy and generosity; and there are not wanting those who are well-informed and earnest, and worthy of comparison with the best of the Germans. But it must be confessed that the mass of them, having been brought up in garrison and ruined by *café* life, are incapable of performing the functions which fall to the lot of an officer in a great war. Their ignorance of geography surpasses anything that one can conceive of. The day before the battle of Patay, a colonel passed through Ouzouer in command of a brigade. The enemy was at that time four leagues distant. He breakfasted with us, and during dessert he said: 'And pray, what may be the name of the village where I have had this excellent breakfast?' It is said that at Sedan MacMahon did not know where to look for the fords of the Meuse, and had never heard of the Marée. It was a common thing to find officers who did not know the difference between the Meuse and the Moselle; and I remember one who was not aware of the existence of such a place as Caen! And all this with an air of the greatest self-satisfaction. They knew nothing, and, therefore, they had no doubts, but were always ready to swagger, and to the end persisted in their lazy and careless ways. Those who know our officers will find it difficult to believe that in Prussia they would have behaved better than the Prussians have in France. I myself saw the Chateau of Ecomans absolutely stripped by the officers of the French staff, while at a few kilometres' distance was the Chateau of Lierville, which had been occupied three times by the Prussians, and had hardly anything in it disturbed. Had our officers but known their profession! But the most tremendous blunders were constantly committed, especially towards the end of the campaign, and in the Garde Mobile. Observe, I am not speaking of military blunders; but I cannot forget the numbers who fell victims to the mania for authority which possessed our newly-made officers, and to their absurd habit of suspecting every one to be a spy. I grieve to say it, but it is the fact that we of the ambulance suffered much more from the French than from the Germans."

THE BRAVEST SOLDIER AT WATERLOO.

A BRITISH officer has been favored with the following anecdote *apropos* of the Waterloo anniversary:

Some few years ago two gentlemen waited on the Duke of Wellington, at Apsley House, and told him that a friend of theirs had died, leaving them executors to his will in which *among other bequests* he left a few hundred pounds to the bravest man in the British army, and as they considered him to be the bravest man they had called to hand over to him a check for the money.

The duke was much pleased at the compliment paid to him, but declined to receive the money, as he said there were many other men in the British army who equalled him in bravery. He was then requested to decide on whom the money should be bestowed. This was a difficult point; but at length he proposed it should be given to Major-General Sir James Macdonell, who so resolutely defended Hougoumont, the key to the British position, in the memorable battle of Waterloo.

The two gentlemen then called on Major-General Macdonell, telling him the decision of the Duke of Wellington, and tendering him the five hundred pounds. But Sir James, in his turn, declined to receive it, knowing, as he said, a man who, in the battle of Waterloo, had shown himself equal to any one in bravery. The major-general then described that when the French troops made one of their rushes at the gate of the farm-house called Hougoumont, in that critical moment when victory and defeat hung evenly in the balance, Sergeant-Major Fraser, a very powerful man, boldly assisted him to close the gates, thereby shutting out the French, who were soon after driven back with great slaughter. Thus was the fortune of the day decided.

The Duke of Wellington considered Major-General Macdonell deserving of the money, on account of his resolute defence of Hougoumont, and Sir James considered that Sergeant-Major Fraser was entitled to share it with him, on account of the great service he had rendered him on that occasion. The money was divided between the general and the sergeant-major, and the generosity of the Duke of Wellington and Sir James Macdonell will not soon be forgotten.

In a speech in the British House of Commons, Mr. Trevelyan said that the real cause of the expense of the British army lay in the fact that they had 125,000 soldiers, who received only £22 per man in the shape of pay, while it cost £20 per man to command them. In the marines, which was a non-purchase corps, the cost of command was £8 13s. per man, while in the purchase corps, as he had just stated, it was £20. All that was because we had four field-marshal, seventy-seven generals, 144 lieutenant-generals, 345 major-generals, 186 honorary colonels, besides twenty-one lucky individuals at the Horse Guards who divided among them some £30,000 a year. Colonel Anson denied the accuracy of this statement, pointing out, first, that the total number of general officers for the purchase corps is 275, inclusive of honorary colonels, and the cost of officering the purchase corps under £10, instead of £20 per man.

The *German Correspondent* copies with satisfaction an article in which the *Journal de Roubaix* endeavors to show that "during the nineteen years and six months in which the affairs of France were directed by the republicans, their crimes, their ambition, their despotism, their imprudence, and their incapacity have cost the country the lives of 4,237,000 Frenchmen, and the sum of seventy-one milliards (71,000,000,000) of francs."

THE NATIONAL GUARD.

RIFLE PRACTICE.—NO. IV.*

CANDLE PRACTICE.

As soon as the men are sufficiently instructed to understand the proper method of aiming, they should at the end of each drill test the improvement they have made by firing at candles. Experience has shown that the explosion of an army cap will extinguish a candle at a distance of three feet from the muzzle if a correct aim be taken at the upper part of the wick, and a very satisfactory idea can therefore be obtained of the shooting of the squad by practising at them.

For this purpose a series of candles should be placed in a socket opposite to each bull's-eye used for aiming drills, and the men drawn up in front of them in single rank and dressed so that the muzzles of their pieces when at an "aim" will be three feet from the lights. If the room is exposed to draughts of air, the candles ought to be placed in a small box with the front and top out, and with a hook on the back to fasten against the wall. This arrangement will also prove convenient both in protecting the wall and in handling the candles.

The sergeants should be provided with means to promptly relight extinguished candles. It is also advisable to have a certain number of pieces devoted exclusively to this purpose to save the armorer unnecessary labor, each squad stacking them at the conclusion of the drill, and leaving them for their successors. If the regiment is armed with breech-loaders, this drill can only be followed when cartridges containing nothing but fulminate can be obtained.

Every company should be frequently practised in aiming drill—in fact, there cannot be too much of it; but as it is apt to be monotonous if protracted, firing at candles should be often directed, as that is always found interesting.

After every discharge each man who has extinguished his candle should come to a "support," and his name be checked by the commanding officer in a list provided for that purpose, the aggregate score of each man being announced at the close of the firing. Not more than from seven to ten shots should be allowed to each man.

With men of the intelligence of those composing the National Guard, the improvement that will be found to result from a little careful practice of this description will be found surprising, and a company that at the beginning could not extinguish more than two or three candles at a volley, in two or three months will put out nine out of ten, and in most cases those who had the least previous practice as sportsmen will prove the best shots. If the firing at these candles or with ball cartridge is not practised immediately after either "position" or "aiming drill" or marching in "double time," it will be much more accurate.

ARMORY TARGET PRACTICE.

The best kind of target is undoubtedly an iron plate, but this, if made thick enough not to become indented, is heavy, cumbersome, and, more than all, expensive, requiring a special foundation, and to be bolted into the wall. A target almost as good, and much lighter and cheaper, can be made of pieces of joists a foot long and about four inches square, laid one upon the other, the ends resting against the wall, and held in place by an iron band encircling them, fastened by screws at the corners, the whole target presenting the appearance of a section of Nicolson pavement. Bullets striking this bury themselves in the grain of the wood without splitting it, and there is hardly any limit to the quantity that can be shot into it without injury. The target for an armory should be about eight feet high by six wide. If made of wood, the ends should be dressed to a smooth face and painted white, having a black bull's-eye five inches square, with a black line sixteen inches square and half an inch wide surrounding it.

To prevent stray shots, a shield should be provided about the size of the target, and having an aperture in the centre a foot by eighteen inches wide. This should be placed between the target and the firing point, at such a distance from the latter that the man standing there will see almost all the target through the hole in the centre. If necessary, a side shield can also be prepared. The thickness of these must depend upon the charges to be used. With the regulation charges, the centre shield should be of tough wood at least two inches thick, plated with sheet-iron on the side toward the target, so that a stray ball will be arrested there, after passing through the wood, without glancing. The side shield need not be so thick, nor will it require plating. If the room will admit, these can be hinged from the ceiling and arranged with a pulley to be lifted out of the way when not in use. If this is impracticable, they can stand on a bottom piece provided with rollers, and be run up against the wall when not wanted. If, however, the men firing are confined to those who have attained some proficiency in aiming drill, and are under the supervision of a careful officer, there will be but little occasion for their use. If the range is so long that a bullet hole cannot be plainly seen from the firing point, accommodations and a proper protection must be provided for a marker in the vicinity of the target. As the range in all armories will be necessarily short, there is no necessity for using the full regulation charge. With a muzzle-loader, a charge such as is usual

in a Colt revolver (belt size) will carry a ball 150 feet point-blank if fine rifle powder is used, and avoid both the smoke and noise arising from the use of a full charge, which in a confined room is a great object. With a breech-loader of course the usual charge must be used, unless special cartridges can be procured. The target should be well lit up, and some lights placed a little in rear of the firing point, but the fewer between that and the target the less the men will be dazzled. This practice is the best possible preparation for field firing, in making both officers and men familiar with the details required to secure safety together with rapidity and precision of firing.

Target firing in the armory should be limited to such men as have extinguished five out of ten candles at a previous drill, whose names should be handed in to the adjutant. If possible, the firing should only take place on a night when there is no drilling going on. This list will be handed by the adjutant to the instructor detailed to command the practice squad, who should make up a roll of the men as they report and fall in. He should then (where muzzle-loaders are used) detail two careful men to load the pieces (of which not more than half a dozen will be required), and a non-commissioned officer to cap them and hand them to the men as required, and will take his place at one side of the firing party. This of course is on the assumption that a special charge is used, and not the usual cartridge. If the latter is the case, each man will load independently, but not cap. Each man as his name is called will step to the firing point, take a piece from the sergeant (which will be given him always with the muzzle up and at half-cock), come to a "ready," and "aim," and "fire," without further orders. As soon as he has fired he will step back, hand his piece to one of the loaders, and resume his position in the ranks. The instructor will record the shot, at the same time calling off the name of the next man on his roll, who will step to the firing point, fire, and fall back as before.

If breech-loaders are used, each man may "load" on arriving at the firing point, but no one is to be permitted to have a loaded and capped piece except the man at that point. This rule is universal both in the armory and in field practice. A bull's-eye counts 4; centre, 3; outer, 2. Bullet holes in the target should either be painted over or covered with a white paper seal as fast as required to prevent confusion.

THE TWENTY-THIRD'S RIFLE PRACTICE EXCURSION.—On the 4th inst., as noticed briefly in our last issue, this excellent command of Brooklyn made its first excursion, combining therewith the practical exercise of rifle-shooting at targets. Long Branch, N. J., was the regiment's destination, and at the western end of this locality the grounds were prepared for this practice, which consumed the greater portion of the day. The necessarily early hour of the assembly, and the midsummer season, undoubtedly affected the numerical strength of the regiment. It, however, made up for this in its steady and soldierly appearance, and the excellent deportment of its members throughout the trip. The regiment, 318 strong all told, assembled at the regimental armory at 5:30 A. M., and with all despatch proceeded to Wall street ferry, and there embarked on the ferryboat *America* and was conveyed to the pier of the Narragansett Steamship Company, North River, embarking on board the regular Long Branch steamer *Plymouth Rock* at 6:30 A. M. Colonel Rodney C. Ward was in command, accompanied by Surgeon Goodrich of his staff, and Acting Quartermaster Harry Crane of the Eleventh brigade staff, and numerous guests, including Major-General Woodward, commanding Second division, Colonels Heath, Cullen, and Major Bissell of his staff, Major Linington and Lieutenant Van Marter of the Eleventh brigade staff, Colonel Mason, Adjutant Richards, and Captain Hempstead of the "nob's" Thirteenth, and his friend Butler of Southern proclivities, Colonel Shaw, Captain Dodge, and some half dozen representatives of the press. The voyage to Sandy Hook, and transportation over the dilapidated New Jersey Southern Railroad, was without incident of note, the regiment finally reaching Long Branch about 9 o'clock. On leaving the cars Brevet Captain and Adjutant Manning immediately formed line, the regiment soon thereafter proceeding in column, followed by guests in carriages, over the sandy road of the Branch, to the shooting grounds selected by Major Partridge and the committee. These were located a little south of President Grant's cottage, some two and a half miles from the railroad depot. The grounds were level, adjoined the main roadway, and suitable for the short range used at this practice. The targets, nine in number (one for each company), were erected on the beach embankment, the distance between each being thirty-seven feet six inches, and the range one hundred yards. No authorized system, we noted with regret, had been adopted for the practice, and nothing of a signal flag nature was introduced to indicate the shots of the marksmen. Small flags were used to indicate only relative positions and danger, a white flag representing the line of company, the blue, position of firing party, and the scarlet, as customary, danger or cessation of firing. The targets were formed by uniting two boards of equal width, presenting a surface six by two feet in extent. The bull's-eye was three inches in diameter, the outer circle of the target proper eleven inches, and the space between these lines three inches. To an average rifle practitioner the missing of these targets at so short a range would have been disgraceful. No disgrace, however, should attach to the members of the Twenty-third, for it must be remembered that target practice is in its infancy in the Na-

tional Guard, and the inferior shooting on this occasion was only what may be expected in almost every regiment on these occasions, or until men acquire some knowledge of distances, position, and the proper mode of handling their pieces. While the Twenty-third is well up in the manual of arms, and understands passably well the firings and the relative position of the latter in the ranks at an "aim," yet it seems at this practice this knowledge fled in most instances, the majority when firing handling a musket in the most awkward manner, and taking all conceivable positions except graceful or proper ones. This resulted mainly from lack of confidence, many of the men seemingly having never before fired a rifle. Now all these minor details can be acquired even in the armory. A careful study on the part of officers and men of the series of articles now being published in the JOURNAL will greatly help to remedy this difficulty, and prepare the troops for the field.

The firing lasted some two hours or more, and resulted as follows for the company silver medals, each member having had three trials: Company A, Private Cowing; B, Sergeant French; C, Private Swalm; D, Sergeant Duryee; E, Sergeant Murphy; F, Corporal Brockway; G, Sergeant Bunnell; I, Sergeant French; K, Sergeant Van Vechten and Commissary-Sergeant Rounds. These members contended for the gold medal, which was finally won by Corporal Brockway, who is most decidedly the best shot in the regiment, giving far more evidence of practice than any other one we observed. The medals are similar, representing on a broad surface the regimental coat of arms, partially surrounded by a wreath, the die being handsomely executed. Just before the final contest a heavy shower of rain deluged the grounds, the troops seeking shelter in the hospitable residence of Dr. Blumenthal, who, in addition to the shelter, furnished refreshments to the members. The practice and shower over, the regiment again assembled and returned to the Continental for dinner. On the return a marching salute was offered General Grant, who came forward, attended by his secretary, General Horace Porter, guests, and family, and received this compliment. The band turned out, and the regiment made a handsome display. Dinner at the hotel took place about 3 P. M. It was quiet and free from speeches, which made it doubly enjoyable. After this, the regimental band, under the conjoint management of Messrs. Papst and Contorno, leader and director respectively, furnished some excellent music on the portico of the hotel, to the gratification of many appreciative listeners. During this time the rain again came on, but shortly after 5 P. M. it ceased long enough to allow the holding of a review, the regiment being formed on the lawn immediately in front of the hotel. Major-General Woodward was the reviewing officer, and was accompanied by two members of his staff in fatigue uniform, and Colonel Allen of the Second New Jersey in citizen's dress. The ceremony was a little hurried; it, however, was remarkably well executed by the troops, who appeared exceedingly steady, and completed the "passage" with good company distance and alignment, amid outspoken compliments of bystanders. We have in mind a few criticisms on the ceremonies performed during this trip, but refrain from publishing them in this instance "on account of the weather." At the conclusion of the review General Woodward, in the presence of the officers, fastened the medals upon the breasts of the successful marksmen; after which, amid rain and mud, the regiment sought the cars to return. The accident and miraculous escape of the passengers on the Sandy Hook bound train has been already chronicled in the dailies. The accident was caused by sheer negligence of the conductor, who should be publicly censured for jeopardizing the lives of so many. The road itself is unsafe, and conducted with but little regard for public safety. The regiment finally reached the New York wharf shortly after 9 o'clock, and took its way through muddy streets to Brooklyn, where it arrived somewhere in the neighborhood of 10:30 P. M.

In conclusion, we must confess that the practical results of the exercises were not very valuable. But the practice was a start in the right direction, and we trust will be the means of encouraging rifle practice more frequently in the command. We would, however, in the future seek grounds nearer home, as this combination of pleasure excursion, and practice at targets does not result in all cases beneficially. The Twenty-third had to contend during the exercise with inferior muskets, the armorer finding it almost impossible to select out of 500 enough in condition or safe for use. Under the circumstances, let us ask, of what practical benefit would a command with these inferior muskets be in the emergency of a riot? The National Guard must have breech-loaders, and that immediately, for not 25 per cent. of the present muzzle-loading guns are fit for use.

RIFLE-SHOOTING ASSOCIATION.—An association should be organized in this city to promote and encourage rifle-shooting on a scientific basis. The National Guard is to-day too slow in getting about this reform. Private enterprise must take up the matter and push it into life. We would suggest that a meeting of those favorable to such a project be called, and should be only too happy to hear from the representatives of the different commands in the First and Second divisions relative to this subject. The subject has already been presented to several enterprising officers and ex-officers of the National Guard, and they have been found enthusiastic in the matter. It only requires hearty co-operation and an actual start to make the enterprise successful. It would

* Entered according to act of Congress, in the year 1871, by W. C. & T. F. Church, in the office of the Librarian, Washington, D. C.

be better that an association of this character should be organized through the direct instrumentality of National Guardsmen, and controlled entirely by them; but rather than incur further delay, we would invite private enterprise. We feel assured that the formation of a stock company, and the establishment of rifle ranges within easy access, would be a paying investment in addition to the benefits which would result therefrom to the National Guard. Take the British National Association for instance. At a general meeting held last spring, the funds in the treasury amounted to over £11,000, or an increase of £2,000 on the receipts of the previous year. Yet this was only one, although the largest of these associations in Great Britain; for there are still several local associations which have not as yet joined the National, although all are gradually verging in that direction. The prosperity of this association should be an incentive for the immediate formation of one of a similar character in this country. Let us have our rifle practice association, also a Wimbledon on American principles.

THIRD CAVALRY.—At a meeting of the board of officers of this command held on the 3d inst., Colonel J. H. Budke announced with regret the resignation of Major Henry Wisser, treasurer of the board, and an officer long connected with the regiment, and who has always displayed his fitness for the position held. A resolution of thanks for past faithful service was unanimously passed by the board.

TWENTY-SECOND INFANTRY.—Colonel Porter, of the Twenty-second, N. G. S. N. Y., has issued a general order suggested by the experience of his command in the 12th of July disturbances. Through some miscarriage, however, a copy of the order has not reached us, and we are obliged to have recourse to the daily press for such extracts as follow. The colonel gives his regiment hearty and legitimate credit for its deportment during the riot, and especially notes the fulness of its ranks, such absenteeism as existed being credited to sickness of members. We accept his earnest argument in favor of better firing practice as a strong support to our own theories, and trust that his anticipation of a speedy issue of breech-loaders to the National Guard will not only not be disappointed, but that the introduction of the improved arm will incite a more thorough study of its use and capabilities:

The lesson of the twelfth of July was sharply illustrated, and must not be forgotten. It is the necessity of the most exacting discipline; not mere proficiency in the manual of arms, but the habit of unquestioning obedience, the subjection of the wishes, opinions, and will of the individual to the proper authority, at all times and under all circumstances. A battalion thoroughly under the control of one mind is a power to be feared, but, influenced by various and adverse opinions, is little better than a mob. Another consideration suggested by the events of the day is the need of a higher standard of marksmanship. This matter has been brought to the notice of the command in previous orders from these headquarters. It is believed that breech-loading rifles will soon be issued, and it is hoped that suitable facilities for target practice may be afforded to the regiments of the First division. Still, much can be accomplished in the armory, and officers are urged to prepare themselves to give instructions in rifle practice as soon as the coming drill season commences. It is suggested also that an acquaintance with some parts of the bayonet drill might be of great use to the men, in such service as the regiment is most likely to be called upon to take part in. The fatigue uniform, with the knapsack, overcoat, leggings, and equipments of every member of this regiment, must at all times be kept at the regimental armory, in the lockers provided for the purpose; and each company commander is required to make frequent and thorough personal inspection of the lockers in his company room, and assure himself that this order is strictly complied with, and that every uniform, etc., is in serviceable condition and ready for use.

THE TWENTY-SECOND'S BATTALION EXCURSION.—The beautiful City of Elms has once more offered kind courtesies to the soldiery of New York. A battalion of the Twenty-second regiment, composed of companies A and H, left this city on the evening of the 8th inst., on a friendly invasion of the hospitable city of New Haven, Conn. The battalion, numbering all told some two hundred, left the armory on Tuesday evening last, and marched under escort of Company B, Twenty-second, Captain Colfax, and a large citizen delegation composed mainly of Company B, Ninth, to pier 25 East river, and there embarked on the steamer *Elm City* of the regular line, Captain Frederick Peck, commanding. The embarkation accomplished, the troops soon after, or at 11 p. m., steamed on their way to their destination. Captain R. Kelly Styles efficiently commanded the battalion, Adjutant Harding of the regiment performing well, as usual, the executive duties of the battalion. Company A, was under the immediate control of Lieutenants Briggs and Cistee, while Company H, was officered by Captain Van Schaick and Lieutenants Huggins and Ritchie. A portion of the veteran corps, under command of Colonel Remmey, paraded with the battalion, and included Lieutenant-Colonel Camp, Major McGrath, Captain Besson, and Lieutenant Laird, and many others. In addition to these the following officers paraded in full uniform with the battalion: Captain Duckworth, Dr. Rodenstein, Lieutenants Pearsall and Terhune. The battalion was in full dress and marching order, and throughout the trip reflected much credit on itself by its characteristic soldierly appearance and precision of movements. The journey toward New Haven was successfully accomplished, although, and as usual, with little or no sleep for those on board the steamer, civilian or soldier. A few effervescent members formed themselves into an association called *Les Miserables* soon after arriving on board, and their ranks were soon filled to repletion. Irrepressible Kergan was one of the first to join this society, and with his aid it soon became firmly established and bade defiance to all seekers of sleep. At New Haven on Wednesday the battalion was received at an early hour by a battalion of the Second Connecticut, composed of Companies D and F, known more widely as the New Haven "Grays" and "Blues." These companies were commanded respectively by Captains Hendrick and Shaw, and numbered some

eighteen files each. Both companies were in full dress, that of the "Grays" being similar in many respects to that of the New York Seventh. The "Blues" wore dark blue cloth uniforms with gold-lace trimmings, presenting a happy contrast to their comrades of the Grays. The fine display made by both these New Haven companies was most creditable to themselves, their officers, and the regiment to which they are attached. The New Yorkers were escorted to the armory of the "Blues," and were there generously welcomed by Mayor Lewis. After stacking arms the battalion marched to the Tontine Hotel and took breakfast, after which the members had full play until afternoon, when it again assembled for review, street parade, and a dress parade on the Green. The men devoted the intervening time to carriage-riding and other amusements afforded in and about the city, while the officers in the main partook of the hospitalities of the State and city authorities at the Adjutant-General's office and Mayor's office. Everything was gotten up in *recherche* style, and the speeches and congratulations on all sides were without stint. One of the pleasant resorts of a portion of the members was "Whistling Grove," located just beyond West Haven. Here in true campaigning style, Messrs. Dickerman and Benjamin held forth tempting morsels in the way of crabs, fish, and clam chowder and the like. Uncle Bill and Dave, as they are called two jolly fellows who take the world easy, have plenty of "withal and wherewith," and during a portion of the summer camp, or at least establish their headquarters, on their possessions of 100,000 acres or thereabouts. The rancho is termed by them the "Grand Central," and it was the grand central by many on Wednesday last. Everything of course was free gratis for nothing. General Booth, one of New Haven's most hospitable and genial citizens, was the leading spirit of the assaulting party on the Grand Central, and our representative with hosts of others are under great obligations for kind attentions. The parade in the afternoon and the review by Governor Jewell, and the final dress parade were handsomely executed by the New York and New Haven companies on the Green. Colonel Smith of the Second did well his part, as did those generally of the entire battalion. A concert excellent in character was given on the Green in the evening by the Twenty-second's band, and the officers and men were sumptuously entertained by the "Grays" and "Blues" at the Tontine and "Lockwood's." Speeches here again followed, by the Governor, Mayor, and many political and military dignitaries, many of which were most happy, and all complimentary as a matter of course. Additional receptions and feasts were lavished on the visitors at the armory of the Grays and Blues, the City Guard, and Sarsfield Guard; in fact everything looked happy on all sides. The parade and escort to the boat was a grand ovation, fireworks and cheers being unlimited. The trip home on the *Frederick*, Captain Deane, was natural, quiet, the men being completely jaded out and overcome by the enthusiastic reception on the part of their New Haven comrades. The men had this time the exclusive use of the steamer, and soon by the aid of hard working Captain Styles and the accommodating clerk of the boat, Mr. F. S. Clark, nearly every one secured staterooms, and arrived home finally in good condition of mind and body.

THE PEOPLE AND THE NATIONAL GUARD.—A recent issue of the Philadelphia *Sunday Republic* contains some important facts and suggestions on this subject, which we condense. It says:

The Constitution of the United States gives the President command of the Army and Navy of the United States, and of the militia of the several States, when called into service to suppress insurrection or repel invasion. Congress has enacted laws regulating the enrolment and disciplining the militia of the several States and which, as members of the Federal Government, are by these laws obliged to support and maintain their respective militia for State as well as national protection. It is impossible for any State of the Union to neglect its duty in this respect without violating its binding covenant with the national compact and Federal Constitution. Because we enjoy the most perfect harmony within our own borders is no argument against the necessity of the strictest enforcement of this law. The militia are liable to be ordered by the President of the United States to perform military duty in any other State, and when so ordered there is no other alternative but prompt obedience to the order. Pennsylvania was, upon several occasions, so inefficient in her militia that she had, with mortification, to call upon the General Government to aid her in quelling the disturbance. Accordingly, her neighboring sister States had to send their troops to do what she should be able herself to do with an organized militia. There is no use to conceal the fact, though it is extremely mortifying to be forced to admit it, that Pennsylvania, notwithstanding her sad experience of ten years ago, is to-day, in point of efficiency in her military defensive material, worse off than then.

In closing, the writer points out some important facts and defects of the Pennsylvania forces, which are equally applicable to other States:

If they (the militia) get but one dollar and fifty cents instead of "twenty dollars" per year, the fault is with themselves and the remedy is plain. If "twenty dollars" per man is necessary to meet the actual annual expenses of each, then our First division should be reduced to about two hundred and fifty, which number might be increased or decreased as the annual funds increased or decreased. And we are free to say, without indiscreetly reflecting upon our present force, that two hundred and fifty amply equipped, well-officed, and thoroughly disciplined men would be more effective than the whole First division in its present inefficient condition. Instead of complaining, as heretofore, of the insufficiency of funds, let the complaint hereafter be the excessive number of troops in proportion to that fund.

ONE MORE CHANCE.—The following from the First division headquarters gives another opportunity for casting votes for the vacancy in the Second brigade. Gentlemen, try and make a choice this time, for it won't do to keep this up "all summer." The following is the order, and we can only add, "may the best man win":

HEADQUARTERS FIRST DIVISION N. G. S. N. Y.,
NEW YORK, August 5, 1871.

Special Orders No. 20.

In obedience to the provisions of Special Orders No. 84, current series, from General Headquarters, an election is hereby ordered to be held at these headquarters, 127 and 129 Mercer street, on Thursday, the 17th inst., at 8 o'clock p. m., to fill the office of brigadier-general of the Second brigade of this division, which has become vacant by the death of Brigadier-General Louis Burger. Major Carl Jussen, aide-de-camp, is charged with the service of

this notice and the returns thereof, in accordance with the requirements of sections 75, 76, and 136 of the Military Code.

By order of Major-General Alexander Shaler.

WM. H. CHEESEBROUGH,
Colonel, Assistant Adjutant-General, and Chief of Staff.
Official: CARL JUSSEN, Major and Aide-de-Camp.

VARIOUS ITEMS.—The Cape May correspondent of the New York *Herald* says: "The Gray Reserves of Philadelphia, the crack military organization of that city, will visit this place about the 15th. There will be parades, competitive drills, a ball, and banquet. If the visitors have anything near as good a time as the Seventh did last August, they need not be sorry they came. Even now the visit of the Seventh is commented on in the most flattering terms, and hopes (vain ones, I fear) indulged that New York will send another. The Ninth seems to be the favorite among the guests. Whether it be owing to its valor on the bloody 12th of July, or whether it is with the hope of seeing Fisk in that \$5,000 uniform, I know not, but an invitation has already been extended, and we are anxiously awaiting an answer. If Fisk accepts, something over a thousand dollars will be expended in medals for competition, and other arrangements will be made that cannot fail to render it a pleasure to the Ninth to visit 'the city by the sea.'....The honorary and active members of the Fifth regiment are holding meetings at the regimental armory to raise means for the relief of the late Sergeant George Elssasser's family, who were injured in the Westfield explosion....A new company, it is reported, is about to bloom in the Forty-seventh Infantry. We trust the enterprise will meet with success, but we fear the formation of a new company in the Burg will be slow. Ex-Captain Bloom, however, has our good wishes, and in passing we will say that if any officer is competent to raise a new organization and control and make it perfect, he is the man....A contemporary soberly reports that plaster casts of Colonel James Fisk's ankle as it appeared just after it was struck with that spent ball are now on exhibition on Broadway....The New Haven Grays propose to celebrate their fifty-fifth anniversary by an excursion of about four days to New York, Brooklyn, and Philadelphia, and will leave home about September 13. It is expected that former members, invited guests, and the company, will at least number one hundred....The citizens of Bennington, Vt., have invited the Twenty-fourth New York regiment to participate in the celebration of the battle of Bennington on the 16th of August. The celebration is intended to be the grandest ever known. Henry Ward Beecher has been invited to deliver an address, and there will be a balloon ascension and base-ball match, the latter having become an indispensable part of every true celebration....In a recent letter from Brattleboro, Vt., General J. W. Phelps says: "It has appeared to me that these reunions of volunteers, after a period of civil war, and especially where they assume the character of secret associations, as they do in the case of the Grand Army of the Republic, are very objectionable in many points of view, and hence I have uniformly declined being connected with them in any way, either as a member or guest. A regularly organized and efficiently maintained militia appears to me to be the only safe and reliable military organization or association of military men for a free country."....The thirty-eighth annual target excursion of Company D, Sixth Infantry, Captain Paul Schoon, assisted by the citizens of Hudson on Monday last. As usual, it was pleasant, and enjoyed by a large assemblage. Company D, First Cavalry, Captain Harman, on the same day enjoyed, with its numerous friends, a picnic and practice at target at Elm Park....Company I, Fifth Infantry, Captain Zimmer, excursions on the Hudson last Sunday, to the immense delight of the members and their friends, including of course a host of pretty girls....The Fifth Infantry has come nobly forward and subscribed over \$700 toward the family of Sergeant Elssasser, who was killed by the Westfield disaster. This amount will probably be much increased....By the way, \$10,000 was voted by the Commissioners to the members of the police injured in the late riot. We have yet to learn of any direct action taken by the city, county, or State toward the relief of those National Guardsmen who were injured or lost their lives in the fearful fray. The police did nobly, and we would be the last to reflect upon them; but it must, however, be borne in mind that they are paid for doing their duty, whereas the National Guardsman sacrifices money and time, and imperils life even, in a strict performance of his duties. Friends and comrades, however, have come and are still coming to the rescue of the brave members of the First division who were injured or killed in the riot....We do not anticipate any trouble on the 25th, on the occasion of the Italian celebration and parade in this city. Precautionary means, however, we presume, will be taken by General Shaler....The Seventy-ninth expect to parade in full Highland costume on the occasion of the coming Burns centenary anniversary celebration. The quartermaster was given \$5,000 to invest in the costume business while away in Europe....The Seventh and other regiments, we observe, are upon the full amount of the penalty for absence, without plausible excuse, on the "bloody twelfth." Many other regiments are likewise cancelling the fines of those court-martialed previously, and who paraded on the occasion of the riot....The excursion picnic of Company H, Sixth Infantry, at Jones's Wood, on Monday last, was as usual most happy in every respect. No one present was more genial or courteous than Captain Max Zenn, the company commandant....Sergeant-Major Norman of the Seventy-first has been offered the adjutancy of the regiment, vice Francis, recently resigned. Mr. Norman is an enthusiastic American Guardsman, and well posted in the duties of an executive officer....We elsewhere refer to the informal meeting of the Connecticut State Board for the examination of breech-loaders for the use of the State forces....The polar bear on the head of Drum-Major Struble on Wednesday last caused a sensation as the gallant major marched at the head of the Twenty-second battalion through the streets of the "Elm City." It is stated that the "Grays" are "going" for these white heads immediately.

OUT-OF-TOWN ITEMS.

NEW JERSEY.—The Sixth New Jersey State Guards, Colonel J. M. Seovel, arrived at the favorite watering-place, Atlantic City, Tuesday morning. A complimentary ball was given the command at the Sea View Excursion House, in the evening.

MASSACHUSETTS.—The First brigade M. V. M. is this week encamped at North Weymouth, Mass., a convenient point for the militia of Suffolk, Plymouth, and Bristol counties, being attainable from Boston by the Old Colony Railroad as well as by steamboats, while the lower counties are brought in easy reach of it by the Taunton and Cape Cod Railroads. The site of the encampment, within a few minutes' walk of the sea-beach, has borne the local name of Lovell's Grove. Its military appellation is Camp Davis. From our Boston files we learn that the brigade reached camp on the morning of the 8th (Tuesday). The tents were pitched on Monday, under the superintendence of Captain Thomas Deatur, assistant quartermaster, and General Chamberlain of the Governor's staff. The headquarters—twenty-four fine marquees—were placed about midway of the field, which is a rather elongated enclosure of 124 acres, while the privates' tents, numbering 546, occupied the opposite side of the parade. The details from the different regiments did their work with an alacrity upon the score of which our exchanges are not slow to congratulate them. The Massachusetts First brigade, the flower of the Bay State militia,

comprises the First, Third, and Ninth regiments, with the First and Second battalions of Infantry, Light Batteries A and B, and the First battalion of cavalry. The order of encampment, as laid out by Captain Brownell Granger, brigade engineer, by direction of General Barrill, is as follows: The First regiment on the extreme right; then the Third regiment; next the Ninth; the First battalion Infantry; the Second battalion Infantry; Light Battery A; Light Battery B; and the cavalry battalion on the extreme left. General Isaac E. Burrill has been since 1866 the commander of the brigade. Thursday and Friday are anticipated as the marked days of the encampment, a delegation of some forty officers of the Rhode Island militia being expected on the former day, and the grand review by the Governor and staff taking place on Friday. General B. F. Butler, commanding the First division, will review the brigade during the encampment.

CONNECTICUT MILITIA.—The Hartford Post states that the Governor of Connecticut is anxious to place the militia on a proper footing in regard to the new law as soon as it can be done, and for this purpose recently called a meeting of Adjutant-General Mervin, Quartermaster-General Dickinson, and the new commander of the militia, General Crawford, who shares with him in this feeling. The subject was discussed in a conversational way, the result being that the Governor will issue an order in regard to the organization of the militia, defining the construction of regiments and the localities of companies. It will be impossible to procure the uniforms in time for a fall encampment, but the business of organization will be pushed forward with all the rapidity possible under the circumstances. The militia will be armed with breech-loaders, but the particular arm has not yet been determined upon.

HEADQUARTERS FIRST DIVISION N. G. S. N. Y.,
New York, July 31, 1871.

Circular No. 3.

The following communication, received at these headquarters today, is promulgated to this command:

"CREMORE, Ontario, July 26, 1871.

"SIR: I hereby transmit a copy of a resolution passed at a district meeting held on Saturday the 22d inst., by the District Lodge of Notawassa, comprising six different private lodges:

"Moved by Brother Alex. McKee, dep't master of 704, and seconded by Brother William Young, treasurer of 631, and Resolved, That we tender our heartfelt sympathy to the sorrowing relatives of the brave officers and private soldiers who fell while defending the laws of their country; while we deplore their death and offer such consolation as we can to those to whom their death is a sore bereavement, it must be a great consolation to know that they fell at the post of duty, fighting to uphold the rights of the people, and to vindicate the majesty of the law.

"You will please accept this as an acknowledgment of our respect and esteem for the valuable services of the military of New York in protecting our brethren of that city on the 12th inst., and greatly oblige by communicating the spirit of the above resolution to those entitled thereto. I have the honor to be your obedient servant,

"S. C. McMANUS, M. D., District Master of Notawassa.
General Shaler, New York. Ontario, Dominion of Canada."

By order of Major-General Alexander Shaler.
WM. H. CHESBROUGH,
Colonel, Assistant Adjutant-General and Chief of Staff.
Official: THOS. FAIRBRIEVE, Captain and A. D. C.

CHANGES IN THE NATIONAL GUARD.

GENERAL HEADQUARTERS STATE OF NEW YORK,
ADJUTANT-GENERAL'S OFFICE, ALBANY, Aug. 1, 1871.
The following officers have been commissioned in the National Guard State of New York during the month of July, 1871:

Tenth Brigade—Captain John Tallmadge, quartermaster, with rank from July 29, vice H. S. Church, resigned.

Twenty-second Brigade—David A. Scott, judge-advocate, with rank from March 1, vice James W. Taylor, resigned; George W. Leonard, quartermaster, with rank from March 1, vice David A. Scott, promoted; Arthur V. Wiltie, aide-de-camp, with rank from February 1, vice David Brown, promoted.

Battery B, Tenth Brigade—E. W. Millard, second lieutenant, with rank from October 14, 1870, vice A. W. Ford, resigned; John B. Whitehead, second lieutenant, with rank from April 6, vice H. Green, promoted; Albert H. Green, first lieutenant, with rank from April 6, vice John Tallmadge, promoted.

Sixth Infantry—Daniel Seckler, second lieutenant, with rank from July 29, vice Isaac Schweizer, resigned.

Eighth Infantry—James Bryan, first lieutenant, with rank from June 6, vice Michael Roche, resigned; Wm. H. Regan, second lieutenant, with rank from June 6, vice E. W. Cook, failed to qualify.

Thirteenth Infantry—James J. Boylan, second lieutenant, with rank from May 22, vice Nelson C. Marcellis, resigned.

Twenty-third Infantry—John Merritt, first lieutenant, with rank from July 10, vice Charles West, promoted; Rufus F. Zogbaum, second lieutenant, with rank from July 10, vice Charles West, promoted; John W. Marshall, first lieutenant, with rank from June 19, vice John Thompson, resigned.

Twenty-fourth Infantry—Wm. A. Rousseau, quartermaster, with rank from July 4, vice A. P. Corne, promoted.

Twenty-sixth Battalion of Infantry—John Peattie, major, with rank from July 31, original.

Forty-seventh Infantry—Wm. H. King, captain, with rank from June 10, vice Geo. E. Orton, promoted.

Fiftieth Infantry—Captain Charles H. Fish, assistant commissary of subsistence, with rank from April 22, original.

Sixty-ninth Infantry—Frederick T. Goggin, adjutant, with rank from June 30, vice E. M. Neville, resigned; Thomas Dempsey, lieutenant-colonel, with rank from June 20, vice P. A. Hargous, resigned.

Seventy-first Infantry—Theodore V. Smith, first lieutenant, with rank from July 6, vice W. A. Elmer, resigned.

Seventy-fourth Infantry—Lewis M. Evans, lieutenant-colonel, with rank from July 3, vice Joseph A. Gault, resigned; Wm. B. Strret, major, with rank from July 3, vice L. M. Evans, promoted; John O'Brien, captain, with rank from July 15, original; James A. Campbell, first lieutenant, with rank from July 15, original.

Eighty-third Infantry—Leslie Fuller, captain, with rank from July 31, original; Ezekiel Hillyer, first lieutenant, with rank from July 31, original; Henry Lohmeyer, second lieutenant, with rank from July 31, original.

Eighty-fourth Infantry—Frank Le Roy Satterlee, surgeon, with rank from April 19, vice James Norval, resigned; Clarence Satterlee, assistant surgeon, with rank from April 19, vice James Quee, resigned.

Ninety-first Infantry—John B. Lemon, first lieutenant, with rank from July 19, vice W. H. Brundage, removed from State.

Ninety-sixth Infantry—Geo. F. Williams, captain, with rank from June 23, vice E. W. Arfken, resigned.

RESIGNATIONS.

The following resignations of officers in the National Guard State of New York have been accepted during the same period:

First Cavalry—Christopher Korner, quartermaster, July 29.

Second Battalion of Cavalry—Daniel M. Stimson, surgeon, July 26.

First Infantry—John K. Perley, colonel, July 31.

Sixth Infantry—William Howe, captain, July 31.

Ninth Infantry—Edward Wm. Francis, first lieutenant, July 31; Thomas J. Robertson, second lieutenant, July 31.

Tenth Infantry—A. H. Purdy, ordnance officer, July 26; J. G. Farnsworth, colonel, July 29.

Twenty-third Infantry—Isaac H. Cary, first lieutenant, July 21.

Twenty-fourth Brigade, Sixth Division—E. W. Longstreet, quartermaster, July 21.

Twenty-fifth Infantry—J. D. Buerger, captain, July 26; Alexander Endres, first lieutenant, July 26; Robert Shaffer, second lieutenant, July 29; George Apple, first lieutenant, July 29; Anthony Wilpers, second lieutenant, July 29.

Twenty-eighth Infantry—Charles Morney, first lieutenant, July 21.

Forty-fourth Infantry—A. T. Eggleston, adjutant, July 31.

Seventy-second Infantry—Alfred Spear, captain, July 29.

Seventy-fourth Infantry—A. C. Hudson, first lieutenant, July 31.

FOREIGN MILITARY AND NAVAL ITEMS.

THE torpedoes laid down on the German coasts have been all taken up, and the regular navigation resumed.

A LIST of all the villages and hamlets in Prussia, with detailed information respecting their population, industry, and resources, is being prepared.

THE English Indian troop-ships are to be supplied with extra screw-fans, in case of accident owing to the intricate passage through the Suez Canal.

THE workmen at the British Royal Arsenal, Woolwich, number now 8,163, against 4,900 two years ago. Great activity prevails in the royal laboratory department and the gun factories.

A SWISS writer, M. Frédéric de Rougemont, declares that soon after the coup d'état of December 2, Napoleon III. offered to Frederick William IV. the restoration of Neufchâtel, on condition that France should obtain Geneva.

THE Army and Navy Gazette reports that the Emperor Napoleon expressed surprise, on his recent visit to Woolwich, at hearing that the breech-loading system had been definitively abandoned for the British field artillery.

THE Duke of Wellington, son of the Field-marshal, is said to be the only landed proprietor in Berkshire who has refused permission for soldiers to pass over his ground at the time of the approaching field manoeuvres. Surely, says *Broad Arrow*, "this is enough to raise the dead."

THE Governmental Gazette of Russia finds the secret of Germany's strength in the fact that she has succeeded in uniting the spirit of modern times with all that is venerable and sacred in the past, without falling behind in the march of progress.

By an imperial order dated July 15, the supreme command of the German marine ceases to be a separate and special authority, and the functions of the former supreme commander of the marine will devolve on the Minister of Naval Affairs, i. e., the Ministry of Marine.

In recent experiments with heavy ordnance at Shoeburyness a large-cored empty Palliser shot, fired with a battering charge of 85 lbs. of powder, went clean through 14½ inches of iron plating and twelve inches of teak, besides doing other damage, without injuring the point.

THE excellent manner in which the French sailors worked their guns during the siege of Paris has induced the authorities to consider whether it would not be expedient to establish for the army a school of gunnery similar to that which has existed for some time now, and with such good results, on board the *Louis XIV*.

In an order issued July 1, the Grand Duke of Baden announces the fusion of the Baden contingent with the Prussian army. Mecklenburg and Hesse-Darmstadt have dissolved their former military administrations. Saxony has by treaty an independently administered army corps. The little duchy of Brunswick has thus far made no convention with Prussia, its sovereign being unable to reconcile himself to the idea of seeing his one infantry, his own hussar regiment, and his one battery of eleven guns incorporated in the Prussian army.

In a system of signalling invented by Captain Colborne of the British army, a large captive balloon is sent up with smaller alphabetical or numeral balloons attached to its cord by loops, ascending by their own power of ascension, and being pulled back by light cords. Gas for the balloons is procured by dissolving zinc or scraps of waste iron in sulphuric acid. The color of these balloons is, the inventor claims, distinguishable at ten miles. Magnesium or other lights can be sent up with these balloons at night.

THE old adage that a gift horse is not to be too closely examined does not prevent the English from criticising the Prussian 9-pounder breech-loader, which they are trying in competition with their own 9-pounder muzzle-loader. Its trajectory is found to be higher than that of the English gun, it can fire but eight shots in three minutes to eleven from the English gun, and its bore has to be cleaned with soap and water after each discharge. In accuracy the guns were found about equal, the English gun planting thirteen shots and the Prussian fourteen out of twenty-five in a target at 1,000 yards. In shell practice the Prussian gun had the advantage.

A NAVAL officer who has published a diary of the siege of Paris, reports that when the Germans on the 19th of September captured the important line of redoubts from Villejuif to Meudon "several hundred courageous men remained in one of the works till night fell, not wishing to quit the post confided to them without orders. In vain they telegraphed to Paris; the terror of the troops had confused the commanders, who believed the redoubt to be in the hands of the Prussians. They returned answers which they thought would disconcert the enemy, and at last, half persuaded that the work had really remained in the hands of their own men, they telegraphed the following cautious order: 'Si vous n'êtes pas des Prussiens, rentrez dans Paris!'"

Broad Arrow thinks that the accident to the *Agincourt* "shows a terrible defect in the service in the want of a proper knowledge of navigation. Seamanship is not neglected, but it is not studied as it should be. The old class of seamen is to a great extent gone, and with the extinction of this class the zeal among officers to study seamanship and navigation is disappearing. Officers have not now the opportunities they had formerly of studying navigation, and, in addition, they know that a special class is professionally intrusted with this branch of knowledge. That every captain, commander, and lieutenant in the navy ought to be able to steer his ship and manage the engines, is an absolute necessity, and, until this necessity is acknowledged, it is impossible to avoid accidents."

THE Army and Navy Gazette says: "The Prussians are putting their newly acquired territory in a state of defence, and a series of works along the chain of the Vosges has been traced under the careful eye of General Von Moltke. Schlestadt and Neuf Brissach are being

repaired. Altkirch is to be made a first-rate place, and Strasbourg is to be fortified on an entirely new principle. The mayor of that town has been informed that the old walls are about to be demolished, and that this will allow of the place becoming double its present size. The French, of course, talk of soon reconquering the provinces just wrested from them, but in a couple of years' time they will find themselves in front of a very ugly line of works. Great activity is displayed by the Prussians in the casting of Krupp guns for their new acquisitions, and the recent campaign is said to have disenchanted them with many things—gun-carriages, needle-guns, officers' swords, color of uniform, and even the celebrated helmet. Nearly everything is to be reformed with the exception of the headpiece, which is considered too distinctive a part of the Prussian soldier to be lightly removed."

HITHERTO the Russian staff officers have been almost exclusively employed in office work, and have had little experience in camp. To remedy this, special manoeuvres of the troops will take place during the present summer for the purpose of exercising staff officers in the various branches of their several departments. General Leontieff, director of the Staff Academy, and Generals Dragomiroff and Schouvaloff, are to direct these operations, the first of which will represent an attack on St. Petersburg. Each of the armies will consist of about four divisions of infantry and eight or ten regiments of cavalry, together with artillery and Cossacks as éclaireurs. The staff of both sides are to send in to the War Department detailed plans of their operations, and render a strict account of the expenditure of stores and provisions. Topographical sketches will also be made, and all inequalities of ground duly noted and reported upon. In order still further to encourage the study of military science, a "scientific exhibition" is to be opened next year at Moscow, in which the military section will occupy a prominent place. There will also be an interesting exhibition of military implements belonging to various periods of Russian history since the time of Peter the Great.

THE London Daily Telegraph derives further evidence of the unfitness of iron-clad turret vessels for long sea voyages from the experience of the *Cerberus*, which left England a few days after the loss of the *Captain* had been announced there. Although she went by the Suez Canal, her voyage to Melbourne occupied a little over five months—just double the time taken by the auxiliary screw mercantile steamers from Liverpool that go around by the Cape of Good Hope. The *Telegraph* says: "Fortunately time was no object, the main point being to get her out in safety, and that end was accomplished by dint of prudent calculation and admirable seamanship. The obstacles to success were, however, manifold. First there was a heavy gale in the Bay of Biscay, during which the vessel rolled so frightfully as to suggest the imminence of a fate like that which befell the *Captain* on almost the same spot. Vividly conscious of their narrow escape, many of the crew deserted as soon as the *Cerberus* arrived at Gibraltar. At Malta there was a delay of no less than two months to take in coal. The Suez Canal was safely passed, and by and by Aden was reached despite stormy weather in the Red Sea. From Aden the next stages were to Galle, and so across to Batavia. After leaving that port the iron-clad was for two days 'on the edge of cyclone,' but she survived the shock and managed to reach Fremantle, in Western Australia, whence to Melbourne is comparatively easy work. Incidentally it is stated that the crew, besides being kept in chronic suspense as to the chances of escaping the fate of the *Captain*, and being also frequently half drowned by the seas shipped, were on reaching the tropics so broiled by the heat as to be scarcely fit for work. The great iron structure became in fact a furnace. The facts show what was never really doubted, that floating batteries, turreted, are practically worthless except for harbor defences—the very work for which the *Cerberus* is designed. She was in some respects less adapted than even the *Captain* was for the open sea, and she had to be fitted with a temporary upper deck and bulwarks for the emergency of the voyage. For fighting purposes she would when at sea have been useless; no guns could have been worked in a vessel rolling at an angle which showed her bilge-piece out of the water. Indeed the difficulty of keeping her crew would of itself have been a serious drawback to anything like efficiency."

MARRIED.

(Announcements of Marriages should be paid for at the rate of fifty cents each.)

FORSTHER—FERKINS.—At Philadelphia, August 1, by Rev. Snyder B. Simcs, Lieutenant JAMES M. FORSTHER, U. S. Navy, to Miss M. J. M. FERKINS, daughter of the late J. C. Perkins. No cards.

DIED.

BUSH.—The history of mankind of all ages and times teems with the lives of remarkable men and women who have lived and died, leaving behind them a long ray of intelligence and virtue, whose sphere of influence, though great in its import and good works, is little felt by the outer world, and whose loss rarely fails to call forth many a tear from, and act as a salutary discipline upon all who knew them. Such, indeed, was our lamented friend the late Mrs. Bush, wife of Major Bush, U. S. Army, Captain Twenty-second Infantry. The wife of a military man, stationed at a frontier post, sharing in all the trials, enduring the vicissitudes and perils of land and water, accommodating her will to the vacillating home of such a wayfarer, carrying with her over hill and dale, through storm and calm, a refining influence and a lovely character that caused her to be blessed and beloved in the military circle of friends with whom she has been associated. Increasing indisposition for many years rendered it necessary for Mrs. Bush to leave Fort Randall for the East, hoping that change of scene would benefit her health. But that insidious and fell destroyer, consumption, suddenly and alarmingly removed her from among those who knew and loved her well. Many a reader whose eyes rest on these words will call to mind that quietly presence, clothed with the most delicate feminine beauty, shadowing a reflected beauty of the soul. It was seen in the devoted wife, the matchless mother, the hospitable hostess, who so often has greeted with cheery light the weary Missouri traveller, and long will her gentle character be remembered as a model to look up to. Incomparable as will be her loss to her relations and friends, she will be no less deeply mourned by her Army associates. The devoted, broken-hearted husband we can only commend to Him who tempers the wind to the shaven one. The motherless babes we leave at Jesus' feet, who will raise them up in his arms and say, "Of such is the kingdom of heaven." *Fort Sully, Dakota Territory.*

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